IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

LABEL$DOLLARS, CORP.,	
Plaintiff/Counterclaim Defendant,	C.A. No. 06-594 (JJF)
v.	
PREMARK FEG, L.L.C.,	**JURY TRIAL DEMANDED**
Defendant/Counterclaim Plaintiff.	

ANSWER AND COUNTERCLAIM

Defendant Premark FEG, L.L.C. ("Defendant" or "Premark"), through its attorneys, hereby answers Plaintiff Label$Dollars, Corp.'s ("Plaintiff" or "Label Dollars") Complaint by stating as follows:

1. Defendant admits that, in its Complaint, Plaintiff requests a declaratory judgment that U.S. Patent No. 7,099,038 ("the '038 Patent") is invalid and not infringed, and also seeks other relief. Defendant denies that Plaintiff is entitled to any judgment or relief. Defendant further denies the remaining allegations in Paragraph 1 of the Complaint.

2. Defendant is without knowledge or information sufficient to form a belief as to the truth of the allegations contained in Paragraph 2 of the Complaint.

3. Defendant admits that Premark is a limited liability corporation organized and existing under the laws of the State of Delaware. Defendant further admits that Premark is a wholly-owned subsidiary of Illinois Tool Works Inc. ("ITW"). Defendant denies the remaining allegations in Paragraph 3 of the Complaint.

4. Defendant admits that, in its Complaint, Plaintiff asserts claims arising under the patent laws of the United States. Defendant further admits that the Court has subject-

matter jurisdiction over claims arising under the patent laws of the United States. Defendant denies the remaining allegations contained in Paragraph 4 of the Complaint.

5. Defendant admits the allegations in Paragraph 5 of the Complaint.

6. Defendant neither admits nor denies the allegations in Paragraph 6 of the Complaint on the grounds that these are legal conclusions, and therefore are not the proper subject for admission or denial.

7. Defendant admits the allegations contained in the first, third, and fourth sentences of Paragraph 7 of the Complaint. Defendant further admits that U.S. Patent No. 7,026,556 ("the '556 Patent") discloses, among other things, "a method for selectively printing different messages on labels printed by an in-store scale involving providing an in-store scale including a label printing mechanism with a supply of labels and a communications link for receiving information from a site external to the store." Defendant further admits that a copy of the '556 Patent is attached as Exhibit A to the Complaint. Defendant denies the remaining allegations in Paragraph 6 of the Complaint.

8. Defendant admits that what Plaintiff purports to be a copy of U.S. Patent Application Serial No. 10/328,928 ("the '928 Application") is attached as Exhibit B to the Complaint. Defendant is without knowledge or information sufficient to form a belief as to the truth of the remaining allegations contained in Paragraph 8 of the Complaint.

9. Defendant admits that what Plaintiff purports to be a Nondisclosure Agreement dated January 28, 2003, between Hobart and Lawrence Mortimer ("Mortimer") is attached as Exhibit C to the Complaint. Defendant denies that Mortimer disclosed to Robert Schuller ("Schuller") or Hobart confidential information related to Plaintiff's alleged invention.

Defendant is without information or knowledge sufficient to form a belief as to the truth of the remaining allegations contained in Paragraph 9 of the Complaint.

10. Defendant admits that Schuller filed a continuation application, Serial No. 10/389,474 ("the '474 Application") with the United States Patent and Trademark Office ("USPTO") on March 14, 2003. Defendant further admits that Schuller assigned the '474 Application to Premark, and that the '474 Application is currently pending before the USPTO. Defendant denies the remaining allegations contained in Paragraph 10 of the Complaint.

11. Defendant admits that Schuller filed a continuation application, Serial No. 10/967,799 ("the '799 Application") with the USPTO on October 18, 2004. Defendant further admits that the '799 Application issued as the '038 Patent, that Schuller assigned the '038 Patent to Premark, and that a copy of the '038 Patent is attached as Exhibit D to the Complaint. Defendant denies the remaining allegations of Paragraph 11 of the Complaint.

12. Defendant admits that on November 23, 2004, Schuller's prosecution counsel petitioned the USPTO to make the '799 Application special because of actual infringement. Defendant further admits that, in connection with this petition, a Statement of Facts was filed with the USPTO describing a system in use at a Dominick's grocery store in Northbrook, Illinois, and that in the opinion of Schuller's prosecution counsel, this system infringed at least some of the pending claims in the '799 Application. Defendant further admits that a copy of the November 23, 2004 petition and the Statement of Facts are attached as Exhibit E to the Complaint. Defendant denies the remaining allegations of Paragraph 12 of the Complaint.

13. Defendant denies that Plaintiff is entitled to any relief on its claims. Defendant neither admits nor denies the remaining allegations of Paragraph 13 of the Complaint

on the basis that they are a legal conclusion, and therefore are not a proper subject for admission or denial.

COUNT I
(DECLARATORY JUDGMENT OF INVALIDITY)

14. Defendant repeats and incorporates by reference its response to paragraphs 1 through 13 of this Answer.

15. Defendant denies the allegations contained in Paragraph 15 of the Complaint.

16. Defendant denies the allegations contained in Paragraph 16 of the Complaint.

17. Defendant denies the allegations contained in Paragraph 17 of the Complaint.

18. Defendant denies the allegations contained in Paragraph 18 of the Complaint.

COUNT II
(DECLARATORY JUDGMENT OF NON-INFRINGEMENT)

19. Defendant repeats and incorporates by reference its response to paragraphs 1 through 18 of this Answer.

20. Defendant denies the allegations contained in Paragraph 20 of the Complaint.

21. Defendant denies the allegations contained in Paragraph 21 of the Complaint.

22. Defendant denies the allegations contained in Paragraph 22 of the Complaint.

23. Defendant denies the allegations contained in Paragraph 23 of the Complaint.

24. Defendant denies the allegations contained in Paragraph 24 of the Complaint.

COUNT III
(DECLARATORY JUDGMENT OF SOLE INVENTORSHIP)

In its motion and opening brief in support filed with the Court on November 16, 2006, Defendant has moved pursuant to Federal Rule of Civil Procedure 12(b)(6) to dismiss all allegations of Count III for failure to state a claim upon which relief can be granted. Accordingly, Defendant need not answer the allegations contained in Paragraphs 25 through 30 of the Complaint. Defendant hereby reserves the right to answer the allegations in these paragraphs in the event its motion is denied.

COUNT IV
(DECLARATORY JUDGMENT OF JOINT INVENTORSHIP)

In its motion and opening brief in support filed with the Court on November 16, 2006, Defendant has moved pursuant to Federal Rule of Civil Procedure 12(b)(6) to dismiss all allegations of Count IV for failure to state a claim upon which relief can be granted. Accordingly, Defendant need not answer the allegations contained in Paragraphs 31 through 35 of the Complaint. Defendant hereby reserves the right to answer the allegations in these paragraphs in the event its motion is denied.

COUNT V
(CONSTRUCTIVE TRUST)

In its motion and opening brief in support filed with the Court on November 16, 2006, Defendant has moved pursuant to Federal Rule of Civil Procedure 12(b)(6) to dismiss all allegations of Count V for failure to state a claim upon which relief can be granted.

Accordingly, Defendant need not answer the allegations contained in Paragraphs 36 through 39 of the Complaint. Defendant hereby reserves the right to answer the allegations in these paragraphs in the event its motion is denied.

SEPARATE DEFENSES

Without waiver, limitation, or prejudice, Defendant hereby asserts the following separate defenses to Plaintiff's claims:

1. Plaintiff's Complaint and the purported claims therein are barred by lack of subject-matter jurisdiction.

2. Plaintiff's Complaint and the purported claims therein are barred for failure to state a claim upon which relief can be granted.

3. Plaintiff's Complaint and the purported claims therein are barred by estoppel and/or waiver.

4. Plaintiff's Complaint and the purported claims therein are barred by the doctrine of unclean hands.

5. Plaintiff's Complaint and the purported claims therein are barred by the applicable statute(s) of limitation.

6. Plaintiff's Complaint and the purported claims therein are barred by laches.

7. Plaintiff's Complaint and the purported claims therein are barred by license and release.

COUNTERCLAIM

Counterclaim Plaintiff Premark FEG, L.L.C. ("Premark"), by its attorneys, for its counterclaim against Counterclaim Defendant Label$Dollars, Corp. ("Label$Dollars"), states as follows:

NATURE OF THE ACTION

1. In its counterclaim, Premark seeks a judgment that Label$Dollars has infringed, contributorily infringed, and induced infringement of U.S. Patent No. 7,099,038 ("the '038 Patent"). Premark requests equitable relief, damages, attorney's fees, costs, expenses, and other appropriate relief as a result of Label$Dollar's infringing conduct.

PARTIES

2. Premark is a limited liability corporation organized and existing under the laws of the State of Delaware.

3. Upon information and belief, Label$Dollars is a corporation organized and existing under the laws of the State of Delaware. Upon information and belief, Label$Dollars has a principal place of business in Denver, Colorado.

JURISDICTION

4. This Court has jurisdiction over the subject matter of this action pursuant to 28 U.S.C. §§ 1331 and 1338, insofar as this action arises under the laws of the United States of America, and specifically under federal patent law.

5. The Court has personal jurisdiction over Label$Dollars because, upon information and belief, Label$Dollars transacts business in this district, has committed act(s) of patent infringement in this district, and has availed itself of the protection of this district by bringing the present action against Premark here.

FACTUAL ALLEGATIONS

6. On September 15, 2000, Robert J. Schuller ("Schuller") filed a patent application, Serial No. 09/663,285 ("the '285 Application") with the United States Patent and Trademark Office ("USPTO"). A true and correct copy of the '285 Application is attached as Exhibit A to this Counterclaim.

7. On October 18, 2004, Schuller filed a continuation application, Serial No. 10/967,799 ("the '799 Application") with the USPTO. The '799 Application claimed the benefit of the filing date of the '285 Application.

8. On March 10, 2005, the '799 Application was published by the USPTO as Pub. No. 2005/0055637 ("the published '799 Application"). A true and correct copy of the published '799 Application is attached as Exhibit B to this Counterclaim. Upon information and belief, Label$Dollars had actual notice of the published '799 Application.

9. On August 29, 2006, the USPTO issued the '038 Patent to Schuller. The '038 Patent claims priority on the '285 Application. Schuller assigned the '038 Patent to Premark. A true and correct copy of the '038 Patent is attached as Exhibit C to this Counterclaim.

10. Label$Dollars is engaged in the design, manufacture, promotion, and sale of a system of incentive marketing that dispenses pre-printed coupons issued before the point-of-sale ("POS") in grocery stores and supermarkets ("system of incentive marketing"). Upon information and belief, this system is used in stores and supermarkets owned by Safeway, Inc., ("Safeway"), including Safeway and Dominick's stores located in the states of Delaware and Illinois, respectively.

11. Label$Dollars infringes the '038 Patent by making, using, selling, and/or offering for sale in the United States products and/or processes that practice one or more claims of the '038 Patent, including the system of incentive marketing used in stores owned by Safeway.

CAUSES OF ACTION

COUNT I
(INFRINGEMENT OF THE '038 PATENT)

12. Counterclaim Plaintiff Premark realleges and incorporates by reference paragraphs 1 through 11 of its Counterclaim as if set forth fully herein.

13. Label$Dollars, in violation of 35 U.S.C. § 271, has directly infringed the '038 Patent by making, using, selling, and/or offering to sell products and/or processes, including the system of incentive marketing sold to and used in stores owned by Safeway, that practice one or more claims of the '038 Patent without authority or license from Premark.

14. Label$Dollars, in violation of 35 U.S.C. § 271(b), has actively and knowingly induced infringement of the '038 Patent by intentionally aiding and abetting third parties' use of the invention of the '038 Patent through its making, using, selling, and/or offering to sell Label$Dollars' products and/or processes, including the system of incentive marketing sold to and used in stores owned by Safeway, that practice one or more claims of the '038 Patent.

15. Label$Dollars, in violation of 35 U.S.C. § 271(c), has contributorily infringed the '038 Patent by (a) selling or offering to sell within the United States a component that constitutes a material part of the invention claimed in one or more claims of the '038 Patent, (b) knowing the component to be especially made or adapted for use in an infringement of the '038 Patent, and (c) knowing that the component is not a staple article or commodity of commerce suitable for substantial noninfringing use.

16. Upon information and belief, Label$Dollars will continue to infringe, contributorily infringe, and/or actively induce others to infringe the '038 Patent unless enjoined by this Court.

17. Premark has been and continues to be damaged and irreparably harmed by the aforesaid acts of infringement by Label$Dollars of the '038 Patent, and will suffer additional damages and irreparable harm unless this Court enjoins Label$Dollars from further infringement.

18. Upon information and belief, Label$Dollars had and has actual notice of the '038 Patent, and has infringed and is infringing the '038 Patent with knowledge of Premark's patent rights. Label$Dollars' acts of infringement have been and are willful and deliberate, justifying the assessment of triple damages pursuant to 35 U.S.C. § 284.

19. Upon information and belief, Label$Dollars' manufacture, use, sale, and/or offering for sale of the infringing products and processes, including the system of incentive marketing sold to and used in stores owned by Safeway, makes this an exceptional case justifying the assessment of attorney's fees against Label$Dollars pursuant to 35 U.S.C. § 285.

COUNT II
(REASONABLE ROYALTY FOR PROVISIONAL RIGHTS)

20. Counterclaim Plaintiff Premark realleges and incorporates by reference paragraphs 1 through 19 of its Counterclaim as if set forth fully herein.

21. The '799 Application was published by the USPTO on March 10, 2005.

22. Upon information and belief, Label$Dollars had actual notice of the published '799 Application.

23. On and after March 10, 2005, Label$Dollars made, used, offered for sale, and/or sold in the United States products and/or processes, including the system of incentive

marketing sold to and used in stores owned by Safeway, that practice one or more claims of the '038 Patent.

24. The invention claimed in the '038 Patent is substantively identical to the invention as claimed in the published '799 Application.

25. Label$Dollars is liable to Premark for a reasonable royalty pursuant to 35 U.S.C. § 154(d).

PRAYER FOR RELIEF

WHEREFORE, Counterclaim Plaintiff Premark prays for the following relief against Label$Dollars:

1. For judgment in favor of Premark that Label$Dollars has infringed and is infringing that '038 Patent in violation of 35 U.S.C. § 271;

3. For an injunction prohibiting Label$Dollars from making, using, selling, or offering for sale the infringing products and processes in the United States;

4. For an award of damages for Label$Dollars' infringement of the '038 Patent, together with interest (both pre- and post-judgment), costs, and disbursements as fixed by this Court under 35 U.S.C. § 284;

5. For a determination that Label$Dollars' infringement has been and is willful, and an award of triple the amount of damages and losses sustained by Premark as a result of Label$Dollars' infringement under 35 U.S.C. § 284;

6. For a determination that this is an exceptional case within the meaning of 35 U.S.C. § 285, and an award to Premark of its reasonable attorney's fees;

7. For a reasonable royalty pursuant to 35 U.S.C. § 154(d); and

8. For such other and further relief, in law or in equity, to which Premark may be entitled.

JURY DEMAND

Counterclaim Plaintiff Premark hereby demands a trial by jury of any and all issues triable of right before a jury.

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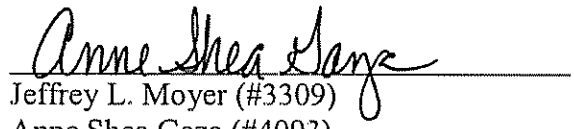

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Attorneys for Defendant/Counterclaim Plaintiff Premark FEG, L.L.C.

Dated: November 16, 2006

UNITED STATES DISTRICT COURT
DISTRICT OF DELAWARE

CERTIFICATE OF SERVICE

I hereby certify that on November 16, 2006, I caused to be served by hand delivery the foregoing document and electronically filed the same with the Clerk of Court using CM/ECF which will send notification of such filing(s) to the following:

Josy W. Ingersoll, Esquire
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I hereby certify that on November 16, 2006, I have sent by Federal Express the foregoing document to the following non-registered participants:

Norman H. Zivin, Esquire
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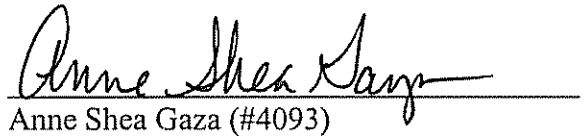

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IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

LABEL$DOLLARS, CORP., Plaintiff/Counterclaim Defendant, v. PREMARK FEG, LLC, Defendant/Counterclaim Plaintiff.	C.A. No. 06-594 (JJF) **JURY TRIAL DEMANDED**

EXHIBIT LIST

A. U.S. Patent Application, Serial No. 09/663,285

B. U.S. Patent Application, Publication No. 2005/0055637

C. U.S. Patent No. 7,099,038

Exhibit A

9-18-00

A

THOMPSON HINE & FLORY LLP

Attorneys at Law

September 15, 2000

In re Application of:

Inventor(s)	:	Robert J. Schuller
Filed	:	herewith
Title	:	METHOD AND SYSTEM FOR CONTROLLING MESSAGES PRINTED BY AN IN-STORE LABEL PRINTER AND RELATED LABEL STRUCTURE
Docket	:	006593-1881

BOX PATENT APPLICATION
Assistant Commissioner for Patents
Washington, D.C. 20231
Sir:

U.S. EXPRESS MAIL AIRBILL NO.

EM103839729US

Enclosed are the following papers:

X Specification, Claims and Abstract, 24 page total.
X Drawings: 7 sheets. (Informal).
X Declaration (Executed).
X A check in the amount of $1266.00 is enclosed, based upon the calculation below.

Basic Fee				$ 690.00
Total Claims	26 - 20 = 6	x $ 18.00	= $108.00	
Independent Claims	9 - 3 = 6	x $ 78.00	= $468.00	
Charge for multiple dependent claims		$260.00	= $ .00	

Fee for Application	**$ 1266.00**
Fee for Recordation of Assignment	**.00**
TOTAL FEES DUE	**$ 1266.00**

The applicant(s) authorizes the Commissioner under 37 C.F.R. §1.136(a)(3) to treat any paper that is filed in this application which requires an extension of time as incorporating a request for such an extension.

Applicant(s) further authorizes the Commissioner to charge any additional fees required (including the fee for any additional extension of time) to Deposit Account No. 20-0809.

Respectfully submitted,

By: Michael J. Nieberding

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BRUSSELS, BELGIUM CINCINNATI CLEVELAND COLUMBUS DAYTON PALM BEACH WASHINGTON, D.C.

Docket No. 006593-1881

METHOD AND SYSTEM FOR CONTROLLING MESSAGES PRINTED BY AN IN-STORE LABEL PRINTER AND RELATED LABEL STRUCTURE

FIELD OF THE INVENTION

The present invention relates generally to in-store printer mechanisms utilized for printing labels applied to products and to label structures utilized by such printer mechanisms, and more particularly, to a method and system for controlling messages printed on labels by an in-store scale for increasing marketing and promotional opportunities.

BACKGROUND OF THE INVENTION

The perishable foods sections of most supermarkets and grocery stores such as the meat department, bakery, deli and produce department, typically include one or more in-store printers for printing labels with item name, weight or count, and price information. The labels are then applied to the packaged items. Many such printers are provided as part of in-store scales or systems including scales. Fig. 9A represents a front surface view of a typical pre-printed label 200 which may be utilized in the scale. The label 200 is often times pre-printed with store-specific information such as the store name and/or logo in a predetermined portion 202 of the label and a remaining portion 204 of the label is left blank to permit the scale printer to print product name, weight, price information, and product bar code in such space. Fig. 9B represents a front surface view of another label 210 which has been used in the past and which is pre-printed with store-specific information such as the store name and/or logo in a predetermined portion 212 and is also pre-printed in label portion 214 with an advertisement message/logo which may relate to any other product sold in the store. Remaining portion 216 is left blank to permit the scale printer to print product name, weight, price information, and product bar code in such space. The problem with the pre-printed advertisement is that it is permanent and cannot be adjusted at the store.

Increasingly, in-store equipment such as scales/scale systems may include a communications link for receiving information externally of the store. As used herein the term scale system refers to any scale device or any larger device which includes a scale, such as a weigh/wrap machine. For example, prior art scale systems exist in which pricing information in the goods database is updated remotely from a central location so that all related stores in a chain use the same pricing scheme. Chain personnel can also use communications links with in-store scale systems to monitor scale status/function. Still further, prior art in-store scale systems exist which are capable of printing two labels, one which includes the product and price information and another which prints a marketing message. An example of such a prior art system is illustrated in Fig. 10 where a store 300 is shown and external site 302 is shown. A scale system 304 including a controller 306 and associated printer 308 is located in the store 302, along with a second printer 310 which is connected to controller 306 for control thereby. The controller 306 is also connected via communications link 312 to a computer 314 at external site 302. In the illustrated system, computer 314 has been used to control pricing information used by scale 304 for printing on a first label by printer 308, and to also control merchandising messages printed on a second, separate label by printer 310, where the pricing information printed by printer 308 and the merchandising information printed by printer 310 related to the same product. Examples of merchandising messages printed on the second label by printer 310 include "Great For The Grill" or "100% Pure Ground Beef" or "50¢ Off". Such prior art systems have also been used to print similar merchandising messages, regarding the product to which a pricing label is applied, on the pricing label itself.

Product manufacturers, distributors, advertisers and store operators are continually looking for new and improved ways to market and advertise products within the store. Accordingly, given the number of labels printed on a daily basis by such scales, and the fact that the packages containing such labels are typically placed directly in front of consumers or into the consumer's hands, it would be desirable to utilize such scales to

deliver marketing and promotional messages for numerous products in a controlled manner.

In the label printing field it is also known to provide coupons on labels which are applied to products. For example, U.S. Patent No. 5,578,797 provides a label structure which includes both a product bar code and a coupon bar code on a front surface of the label. The coupon portion of the label is designed to be torn off by the customer. However, some customers may not tear off the coupon. In such cases, this label structure can be problematic because checkout scanners can be confused by the presence of two bar codes on the label. Accordingly, it would also be desirable to provide a label structure which provides coupon capability while overcoming the aforementioned problem.

SUMMARY OF THE INVENTION

In one aspect of the present invention, a method for selectively printing different messages on labels printed by an in-store scale involves providing an in-store scale including a label printing mechanism with a supply of labels and a communications link for receiving information from a site external to the store. The scale label printing mechanism is configured in a first state and, during the first state, simultaneous printing of two types of information on a first label takes place. In particular, both (i) product information for a specified product to which the first label will be applied and (ii) a first message pertaining to a product which is different than the specified product to which the first label will be applied, are printed on the first label. The in-store scale receives a message control signal via the communications link which configures the scale label printing mechanism in a second state. During the second state, simultaneous printing of two types of information on a second label takes place. In particular, both (i) product information for a specified product to which the second label will be applied and (ii) a second message, different than the first message, and also pertaining to a product which is different than the specified product to which the second label will be applied, are printed on

the second label. Thus, the method enables messages imprinted on labels to be selectively controlled by parties such as the manufacturer or distributor of the predetermined product, or an advertising agency charged with increasing sales of the predetermined product.

In one variation of the method, the first and second messages relate to coupon discount amounts for the predetermined product. In connection with this variation, another aspect of the invention provides a label structure including a base paper having front and rear surfaces, at least one pre-printed information region toward the rear surface of the base paper. The pre-printed information region is formed by an adhesive layer adjacent the rear surface of the base paper, an adhesive deadening layer overlaying the adhesive layer in a defined area, and a layer of printed information overlaying at least portions of the adhesive deadening layer. The layer of printed information may include a coupon bar code which can be tied to the coupon discount information to be printed on the front surface of the label. Because the coupon bar code is provided on the rear surface of the label, it will face inward against a package and will not cause confusion with the product bar code on the front surface of the label during scanning, in the event the customer does not detach the coupon before checkout.

Still a further aspect of the invention provides a method for controlling an in-store label coupon printing system involves providing an in-store label printing mechanism including a controller and associated memory, and a user input device. A supply of labels is also provided for the in-store printing mechanism, each label including a pre-printed coupon bar code on a rear surface portion thereof. The user input device is selectively utilized to establish a coupon message to be printed on a front surface of the labels by the in-store printing mechanism. A stored discount amount associated with the coupon bar code is provided in at least one of an in-store point-of-sale computer system memory and a store computer system memory. The stored discount amount is adjusted as needed to coincide with changes made in the coupon message printed by the in-store label printing mechanism.

BRIEF DESCRIPTION OF THE DRAWINGS

Fig. 1 is a schematic diagram of one embodiment of a label printing system in accordance with the present invention;

Fig. 2 is a schematic diagram of a scale mechanism including a label printer;

Fig. 3 is a flowchart of steps according to one embodiment of a method of the present invention;

Figs. 4A and 4B show front and rear surface views of one embodiment of a label structure according to the invention;

Fig. 5 is a cross sectional view along line 5-5 of Fig. 4A;

Fig. 6 is a side view of a supply roll of labels;

Figs. 7A and 7B show front and rear surface views of a printed label;

Fig. 8 is a perspective view of a labeled package assembly;

Figs. 9A and 9B show front and rear surface views of prior art labels; and

Figs. 10 is a schematic diagram of a prior art system.

DETAILED DESCRIPTION OF THE EMBODIMENTS

Referring to drawing Fig. 1, a schematic diagram of a system 10 useful in carrying out the present invention includes a store 12, a communications path 14, and a retail headquarters, product manufacturer, distributor or advertising agency location 15. The store includes scale system 16 which is connected to the communications path 14 via communications link 18 for receiving externally generated messages, such as those generated by a computer 20 at location 15. The store 12 also includes a store computer system 22 which may be used for tracking and maintaining inventory and a point-of-sale (POS) computer system 24 which is utilized for customer checkout and typically includes a plurality of bar code scanners. Communications link 26 between the scale system 16 and POS system 24 may be provided and communications link 28 between the store computer system 22 and scale system 16 may also be provided. While the use of communications

link 18 to enable the scale to receive external messages is preferred, it is recognized that the scale could receive such externally generated messages via indirect links such as a communications link comprised of link 30, store computer system 22 and link 28. Links 18, 26, 28 and 30 are preferably hard-wired links such as typical telephone line or coax links, but it is recognized that wireless links could also be utilized. Communications path 14 may preferably be an Internet link but might also be a dedicated type link. In either case the path may be formed by any one of hard-wired, fiber-optic or wireless type arrangements, and combinations of the same.

As shown in Fig. 2, the scale system 16 includes a controller 40 with an associated communications interface 42. The controller 40 typically includes associated memory for storing firmware, software and data as needed. At least one load cell and associated circuitry 44 are provided for delivering weight information to the controller 40. The controller 40 is connected for controlling a display 46 such as an LED or LCD, and also for controlling a printing mechanism portion which includes print head 48, label supply 50, and mechanism such as a motor drive (not shown) for moving label stock past the print head 48 along a predefined path 52. A user input device 54 such as a plurality of user input keys or a touch screen arrangement associated with the display 46 enables a user to input information such as the product type and cost per pound or product code, as well as other information, to the controller 40.

Scale system 16 may be representative of the typical scale system utilized in one or more of the perishables departments of a supermarket or grocery store for printing labels which are then applied to products. For example, stand alone scales in the deli department print labels which are typically applied to lunch meats, cheeses, side salads and the like. Such scales can also be utilized in the produce department or meat and fish departments. Weigh/wrap type machines are also commonly used. Regardless of where the scale system is located, the present invention enables it to be utilized in a new and improved manner for selective control of messages printed on labels. In particular,

referring to the flow chart 60 of Fig. 3, exemplary steps in one embodiment of the message control method of the present invention are shown. It is assumed at initial step 62 that the in-store scale system 16 including label printing mechanism 48, supply of labels 50, and communications link 18 for receiving information from a site external to the store is configured in a first state. At step 64 a specified product (e.g. lunch meat) is weighed and price calculated. At step 66 simultaneous printing of two types of information on a first label takes place. In particular, both (i) product information (name and price) for the specified product to which the first label will be applied and (ii) a first message pertaining to a product (e.g. potato chips) which is different than the specified product, are printed on the first label. Thereafter, at step 68 a stand by for the next weigh and print is indicated. If there is no change from the first state of the scale system printer then path 70 will be followed and the next label will be simultaneously imprinted with specified product information and the first message. However, if there is a change from a first state of the scale printer to a second state of the scale system printer, then path 72 will be followed and the next scale weigh operation will take place at step 74 and at step 76 simultaneous printing of two types of information on a second label takes place. In particular, both (i) product information (name and price) for the specified product to which the second label will be applied and (ii) a second message, different than the first and pertaining to the a product which is different than the specified product, are printed on the second label. A new standby state 78 is then shown, with optional paths 80 and 82 according to whether a state change in the scale system printer occurs.

As used herein, the terminology "simultaneous printing" of information on a label refers to printing which takes place on the label as it passes by the printhead in a single pass, and encompasses, without limitation, both side-by-side printing of information and printing first information on a first portion of the label as the first portion passes by the print head and, subsequently, printing second information on a second portion of the label as the second portion of the label passes by the print head.

The state change of the scale system printer may be controlled by receipt by the in-store scale of a message control signal via the communications link which configures the scale label printer in a second state. In one embodiment the scale 16 includes a stored table of selectable message options, each including an associated message indicator as shown in representative Table I below:

TABLE I: STORED MESSAGE OPTIONS TABLE

Message Indicator	Message Option
0000	50 Cents Off - Expires MM/DD/YY
0001	25 Cents Off - Expires MM/DD/YY
0010	10 Cents Off - Valid MM/DD/YY - MM/DD/YY
0011	2 For 1 Special - Valid MM/DD/YY - MM/DD/YY
0100	Try New (BRAND) Chips - Now With Less Fat
0101	Try (BRAND)'s New Barbecue Style

In this arrangement, the scale system also includes a memory location including a selected message indicator. Thus, in state 1 of the example described above the stored selected message indicator could be "0000" in which case during the printing operation of step 66 the scale controller references stored message options Table I and retrieves the "50 Cents Off - Expires MM/DD/YY" message for printing. The control message received via the communications link to cause the state change will be another message indicator such as "0010" which in turn is automatically and immediately overwritten into the selected message indicator memory location. Thereafter, during the printing operation of step 76 the scale controller references stored message options Table I and retrieves the "10 Cents Off - Valid MM/DD/YY- MM/DD/YY" message for printing. Alternatively, the control message received via the communications link may include a new message indicator and

associated time or date at which such new message indicator is to be utilized as the selected message indicator. In such cases the data structure storing the selected message indicator may also comprise a table such as Table II below:

TABLE II: SELECTED MESSAGE INDICATORS

Start Date	Selected Message Indicator
MM/DD/YY	0000
MM/DD/YY	0010
MM/DD/YY	0100

In this arrangement the scale system controller is configured to utilize a running time clock to determine when to change the scale system printer state and begin using a new message indicator. Thus, externally generated message control signals can be utilized to establish a future message selection pattern as desired.

Utilizing the stored message table technique enables the store owner/operator and the outside entity (product manufacturer, distributor or advertiser) to agree upon permissible messages in advance. However, an alternative embodiment in which the scale system merely stores the message to be printed for state 1 in memory and in which the message control signal received by the scale contains the new message for printing (as opposed to a message indicator) in state 2 is contemplated. Still further, where the stored message table arrangement is utilized, it is possible that the communications link could be utilized to update or revise the stored message table in memory of the scale. In either embodiment, the system and method enables messages printed on labels in the store to be selectively controlled by parties such as chain personnel at retail headquarters, the manufacturer or distributor of the predetermined product, or an advertising agency charged with increasing sales of the predetermined product.

It is recognized that Table I is merely representative of one type of message options table and that others could be utilized. For example, an alternative message options table is set forth below as Table III:

TABLE III: STORED MESSAGE OPTIONS TABLE

Message Indicator	Message Option- Part 1	Message Option - Part 2
0000	50 Cents Off	Expires MM/DD/YY
0001	25 Cents Off	Expires MM/DD/YY
0010	10 Cents Off	Valid MM/DD/YY - MM/DD/YY
0011	2 For 1 Special	Valid MM/DD/YY - MM/DD/YY
0100	Try New (BRAND) Chips	Now With Less Fat
0101	(BRAND)'s Barbecue Style	Preferred 2 To 1

Notably, Table II includes two message option parts which the controller can retrieve for printing at different locations on the label. It is also contemplated that a three-dimensional message table or map could be utilized. Such a table could store messages as a function of message indicator and specified product to which a label is to be applied, so that the message is varied according to selected message indicator and the product to which the label is to be applied. For example, if steak is purchased a message for one product might be printed while if hot dogs are purchased a message for another product might be printed.

As demonstrated by the last two messages in each of Tables I and III, the messages which are selected for printing may be non-coupon messages. However, in a preferred arrangement the messages which are selected for printing on labels output by the scale system relate to coupon discount information for the predetermined product. For example, as indicated in Table I above the message may be an amount off, a 2 for 1 type special, or might also be a percent off type coupon discount amount. In this regard, a

preferred label structure 90 for use in combination with the message control method is illustrated in front and rear surface views respectively in Figs 4A and 4B. Label structure 90 includes a front face 92 having a store name/logo 94 pre-printed thereon, a central region 96 defined by a separation line 98 and a lower region 100 defined by the edges of the label and separation line 102. Separation lines 98 and 102 may be formed by any known means including perforation or other weakening of the base paper. The region between store name/logo 94 and the separation line 102 will be used during a printing operation of the scale system to print name and price information and/or product bar code for the specified product to which the label is to be attached. The region below separation line 102 will be used during a printing operation of the scale system to print the message information for the predetermined product. In this regard, the lower region may include a pre-printed name and/or design element of the predetermined product in region 104, with the selectable message then being printed to the right of region 104.

Where the selectable message is a coupon discount message, the label structure rear surface 110 preferably includes a pre-printed coupon bar code 112 on the lower portion of the label so that when the lower portion of the label is detached, the coupon bar code stays with the coupon message printed on the front side. On the rear side of the region defined by separation line 98, other pre-printed information may be provided such as recipe type information. Where the selectable message information is a coupon discount message, a further step is in order to correlate the change in coupon discount information to the coupon bar code which will be scanned at check-out by the P.O.S. computer system 24 (Fig. 1). One or both of the P.O.S. computer system 24 and the store computer system 22 will include a stored discount amount associated with the coupon bar code 112. When the coupon discount message is changed, the stored discount amount associated with bar code 112 will also need to be changed at some point in the future. Generally, the stored discount amount associated with bar code 112 will be changed at a time corresponding to both the expiration of the valid period for coupons having a first

coupon message and the beginning of the valid period for other coupons having a second coupon message. Links 26 and 28 facilitate adjustment of the stored discount amount associated with the coupon bar code 112 as needed. The expiration date of a given coupon discount is printed on the front of the label (see Tables I and III) to prevent problems with customers attempting to use a coupon after the stored amount has been changed.

Referring again to Figs. 4A and 4B, an important distinction exists between pre-printed information provided on a label and information which is printed by the in-store scale system. In particular, "pre-printed" information exists on the labels when supplied to a store and therefore cannot be changed or modified by the store unless a different label format is chosen/selected or unless an attempt is made to overwrite or black out a pre-printed message on the front of a label. Referring to the cross-sectional view of Fig. 5 the label structure 90 is formed by a base paper 114. Toward the front surface side of the base paper a layer 116 formed by a thermally sensitive composition is first provided and atop the thermal layer 116 a layer or coating 118 of a sealing composition is provided to prevent loss of the thermal layer 116. Atop the sealing layer 118 an ink-based layer 120 of pre-printed information is provided in those regions where such pre-printing is desired. When indicia 122 (e.g. selectable messages) are printed by the thermal print head of the scale, such messages are formed in the thermal layer 116 but are visible through the clear sealing layer 118. Toward the rear side of the base paper 114 a layer 124 of an adhesive composition is provided for securing the label to a product package. In those regions where pre-printed information is provided on the rear surface of the label 90, the adhesive layer 124 is covered by an adhesive deadening layer 126 so that that portion of the label can be removed from the package easily. The adhesive deadening layer may typically be formed by a layer of white ink applied over the adhesive. An ink-based layer 128 of pre-printed information (e.g. coupon bar code or recipe) is then applied over the adhesive deadening layer. Referring to Fig. 6 a representative supply roll 130 of label structures 90 is shown. The supply roll includes a liner 132 having a silicone release layer 134 applied

thereto such that when the adhesive side of label structures 90 is applied to the liner they can be easily removed for dispensing from the scale and application to a product package.

The manufacturing method for producing such label stock involves starting with a wide roll of stock with label material with adhesive side attached to the release surface base paper. The label material is then re-applied to the base paper. The label material is then die cut to form individual labels and length cut to form multiple label supply rolls.

After printing product information and message information on a label as described above, the resulting label structure may be that shown in Figs 7A and 7B where front and rear surface portions of a printed label structure 140 are shown. In particular the front surface 142 of printed label structure 140 includes a product bar code 144 thereon as printed by the scale print head. The rear surface 146 of the label structure includes the pre-printed coupon bar code 148. This arrangement eliminates the possibility that the P.O.S. scanners will confuse the two bar codes during check-out. Because the coupon portion of the label might be removed by the consumer prior to check-out, the product bar code 146 on the front surface is preferably positioned at a location spaced from but proximate to a location of the scannable coupon information bar code. In this regard, the term "proximate" is used to refer to a location which results in positioning of the product bar code 142 toward the same side 150 (Fig. 8) of a product package 152 as the coupon bar code 148 when the label is applied to the product package forming a label and package assembly 154.

Although the invention has been described and illustrated in detail it is to be clearly understood that the same is intended by way of illustration and example only and is not intended to be taken by way of limitation.

For example, while a major advantage of the above-described method provides retailers, product manufacturers, distributors and advertisers the ability to selective control messages printed on labels printed in a store, it is recognized that the user

input device 54 may be used to selectively control messages as well. Thus, a method for controlling an in-store label coupon printing system is provided which involves providing an in-store label printing mechanism including a controller and associated memory, and a user input device, and providing a supply of labels for the in-store printing mechanism, each label including a pre-printed coupon bar code on a rear surface portion thereof. The user input device is selectively utilized to establish a coupon message to be printed on a front surface of the labels by the in-store printing mechanism. A stored discount amount associated with the coupon bar code is provided in at least one of an in-store point-of-sale computer system memory and a store computer system memory. The stored discount amount can be adjusted to coincide with changes made in the coupon message printed by the in-store label printing mechanism.

Further, while the use of a scale system with an associated print head is primarily discussed herein, it is recognized that other in-store label printing mechanisms could also be used for selective control of messages printed on labels.

Accordingly, the spirit and scope of the invention are to be limited only by the terms of the appended claims.

What is claimed is:

Docket No. 006593-1881

Claims

1. A method for selectively printing different messages on labels printed by an in-store scale system, the method comprising the steps of:

(a) providing an in-store scale system including a label printing mechanism with a supply of labels, and a communications link for receiving information from a site external to the store;

(b) configuring the scale system label printing mechanism in a first state;

(c) during the first state, for each label output by the scale system label printing mechanism, simultaneously printing both:

(i) at least one of product name and price information for a product to which the label will be applied, and

(ii) a first message pertaining to a predetermined product which is different than the product to which the label will be applied;

(d) receiving, by the scale system, a message control signal via the communications link which configures the scale system label printing mechanism in a second state; and

(e) during the second state, for each label output by the scale system, label printing mechanism, simultaneously printing both:

(i) at least one of product name and price information for a product to which the label will be applied, and

(ii) a second message, different than the first message, and also pertaining to the predetermined product which is different than the product to which the label will be applied.

2. The method of claim 1 wherein step (a) includes providing at least one of a pre-printed name and design element of the predetermined product on each label.

3. The method of claim 1 wherein step (a) includes providing a pre-printed scannable coupon bar code on each label, and in steps (c)(ii) and (e)(ii) the first and second messages each comprise at least respective coupon discounts for the predetermined product.

4. The method of claim 3 wherein the pre-printed coupon bar code is associated with a stored discount amount in at least one of an in-store point-of-sale system and a store computer system, the method comprising the further step of:

(f) adjusting the stored discount amount associated with the pre-printed coupon bar code to correspond to the coupon discount amount printed in step (e)(ii)..

5. The method of claim 3 wherein in steps (c)(ii) and (e)(ii) the first and second messages each further comprise coupon validity information.

6. The method of claim 5 wherein the pre-printed coupon bar code is associated with a stored discount amount in at least one of an in-store point-of-sale system and a store computer system, the method comprising the further step of:

(f) adjusting the stored discount amount associated with the pre-printed coupon bar code at a time which corresponds to expiration of the first coupon message and beginning of a validity period of the second coupon message.

7. The method of claim 3 wherein the pre-printed coupon bar code is provided on a non-adhesive, rear surface portion of the labels, and the first and second messages are printed on an opposed front surface of the labels.

8. The method of claim 1 wherein step (a) includes providing a stored table of message options in memory of the scale system, each message option having an associated respective message indicator, and in step (d) the message control signal received via the

communications link comprises at least one message indicator associated with one of the message options stored in memory of the scale system.

9. The method of claim 1 wherein step (a) includes providing the first message at a storage location in memory of the scale system, and in step (d) the message control signal received via the communications link comprises at least the second message, the method including storing the received second message in memory of the scale system.

10. The method of claim 1 wherein in step (d) the message control signal received via the communications link is sent by one of a manufacturer, distributor and advertiser for the predetermined product.

11. The method of claim 10 wherein step (a) includes providing a stored table of predetermined message options in memory of the scale system, the table associating a particular message indicator with each message option, and in step (d) the message control signal received via the communications link comprises at least one message indicator associated with one of the message options stored in memory of the scale system.

12. The method of claim 1 wherein subsequent to steps (c) and (e) the printed labels are applied to product packages.

13. The method of claim 1 wherein step (d) occurs subsequent to step (c).

14. An in-store label printing arrangement adapted for printing coupon information on labels to be applied to packages, comprising:

an in-store scale system including a print head and a supply of labels movable along a label path past the print head for having indicia printed thereon, the labels each including

a coupon bar code on its rear surface, a controller operatively connected for controlling the print head, memory having a table of message options stored therein, each message option having an associated respective message indicator;

a communications link associated with the controller of the scale system for receiving information from a site external to the store;

wherein in a first scale system configuration the controller is operable to effect simultaneous printing of both (i) product information of a product to which a label is to be applied and (ii) a first coupon message according to a selected message indicator stored in memory, the first coupon message relating to a product which is different than the product to which the label is to be applied;

wherein the selected message indicator stored in memory is changed according to a message control signal received via the communications link, placing the scale system in a second configuration; and

wherein in the second scale system configuration the controller is operable to effect simultaneous printing of both (i) product information of a product to which a label is to be applied and (ii) a second coupon message according to the changed selected message indicator stored in memory, the second coupon message also relating to a product which is different than the product to which the label is to be applied.

15. A method for in-store advertising by a product manufacturer/distributor utilizing an in-store printing mechanism, the method comprising the steps of:

(a) providing an in-store label printing mechanism including a communications link for receiving information remotely from the product manufacturer/distributor;

(b) providing a table of predetermined message options stored in memory of the in-store label printing mechanism, the table associating a particular message indicator with each message option;

(c) providing a supply of labels each having a pre-printed scannable coupon bar code on a rear surface thereof;

(d) printing, with the in-store label printing mechanism, messages on labels according to a selected message indicator, wherein the messages are printed on a front surface of the labels and comprise at least coupon discount amounts and coupon validity information;

(e) sending at least one message control signal from the product manufacturer/distributor to the in-store label printing mechanism via the communications link, the message control signal identifying a new selected message indicator, enabling the product manufacturer/distributor to selectively control which of the predetermined message options is printed on labels by the in-store label printing mechanism; and

(f) applying the printed labels to product packages.

16. A method for controlling an in-store label coupon printing system, the method comprising the steps of:

(a) providing an in-store label printing mechanism including a controller and associated memory, and a user input device;

(b) providing a supply of labels for the in-store printing mechanism, each label including a pre-printed coupon bar code on a rear surface portion thereof;

(c) selectively utilizing the user input device to establish a coupon message to be printed on a front surface of the labels by the in-store printing mechanism;

(d) providing a stored discount amount associated with the coupon bar code in at least one of an in-store point-of-sale system memory and a store computer system memory; and

(e) adjusting the stored discount amount to coincide with changes made in the coupon message printed by the in-store label printing mechanism.

17. A method for selectively printing different messages on labels printed by an in-store scale system, the method comprising the steps of:

(a) providing an in-store scale system including a label printing mechanism with a supply of labels, and a communications link for receiving information from a site external to the store;

(b) during a first state of the scale system printing mechanism, simultaneously printing on a first label both:

(i) at least one of product name and price information for a specified product to which the first label will be applied, and

(ii) a first message pertaining to a product which is different than the product to which the first label will be applied;

(c) receiving, by the in-store scale system, a message control signal via the communications link which configures the scale system label printing mechanism in a second state; and

(d) during the second state, simultaneously printing on a second label both:

(i) at least one of product name and price information for a product to which the second label will be applied, and

(ii) a second message, different than the first message, and also pertaining to a product which is different than the specified product to which the second label will be applied.

18. The method of claim 17 wherein the product to which the first message pertains in step (b)(ii) is the same as the product to which the second message pertains in step (d)(ii).

19. A method for selectively printing different messages on labels output by an in-store printing mechanism, the method comprising the steps of:

(a) providing an in-store label printing mechanism with a supply of labels, and a communications link for receiving information from a site external to the store;

(b) simultaneously printing on a first label both:

(i) at least one of product name and price information for a product to which the first label will be applied, and

(ii) a first message pertaining to a product which is different than the product to which the first label will be applied;

(c) receiving, by the in-store label printing mechanism, a message control signal via the communications link; and

(d) simultaneously printing on a second label both:

(i) at least one of product name and price information for a product to which the second label will be applied, and

(ii) a second message, different than the first message and established by the message control signal of step (c), and also pertaining to a product which is different than the product to which the second label will be applied.

20. A method for selectively printing messages on a label output by an in-store printing mechanism, the method comprising the steps of:

(a) providing an in-store label printing mechanism with a supply of labels, and a communications link for receiving information from a site external to the store;

(b) receiving, by the in-store label printing mechanism, a message control signal via the communications link;

(c) subsequent to step (b), simultaneously printing on a label both:

(i) at least one of product name and price information for a product to which the first label will be applied, and

(ii) a message pertaining to a predetermined product which is different than the product to which the first label will be applied, the message corresponding to the message control signal received in step (b).

21. A label structure, comprising:

a base paper including front and rear surfaces, at least one pre-printed information region toward the rear surface of the base paper, the printed information region comprising:

an adhesive layer adjacent the rear surface;

an adhesive deadening layer overlaying the adhesive layer in a defined area; and

printed information in at least portions of the defined area.

22. The label structure of claim 21 wherein the printed information overlays at least portions of the adhesive deadening layer and the layer of printed information comprises a scannable coupon bar code.

23. The label structure of claim 22 wherein a scannable product bar code is positioned toward the front surface of the base paper at a position spaced from but proximate to the scannable coupon bar code.

24. The label structure of claim 23 wherein at least a portion of the printed information region is defined by a separation line formed in the base paper.

25. A roll of labels of the type specified in claim 23, wherein the roll includes a backing material having a release coating on a surface thereof, the rear surface of the labels applied to and facing the backing material surface including the release coating.

26. A labeled package assembly, comprising:

a package;

a label adhesively attached to the package, the label including an outwardly facing front surface having a scannable product information bar code thereon and a rear surface which faces inwardly toward an outer surface of the package, a portion of the label rear surface having a scannable coupon information bar code thereon;

wherein the scannable product information bar code is positioned at a location spaced from but proximate to a location of the scannable coupon information bar code;

wherein the portion of the label rear surface including the scannable coupon information bar code is defined by at least one separation line of the label and is removable from the package in a manner which leaves the scannable product information bar code remaining on the package.

Docket No. 006593-1881

METHOD AND SYSTEM FOR CONTROLLING MESSAGES PRINTED BY AN IN-STORE LABEL PRINTER AND RELATED LABEL STRUCTURE

ABSTRACT

A method for selectively printing different messages on labels printed by an in-store scale involves providing an in-store scale including a label printing mechanism with a supply of labels and a communications link for receiving information from a site external to the store. The scale label printing mechanism is configured in a first state and, during the first state, simultaneous printing of two types of information on a first label takes place. In particular, both (i) product information for a specified product to which the first label will be applied and (ii) a first message pertaining to a product which is different than the specified product to which the first label will be applied, are printed on the first label. The in-store scale receives a message control signal via the communications link which configures the scale label printing mechanism in a second state. During the second state, simultaneous printing of two types of information on a second label takes place. In particular, both (i) product information for a specified product to which the second label will be applied and (ii) a second message, different than the first message, and also pertaining to a product which is different than the specified product to which the second label will be applied, are printed on the second label.

142094.1

Fig. 1

LOAD CELL CIRCUITRY
44
40
CONTROLLER
PRINT HEAD
48
52
DISPLAY
46
USER INPUT
54
COMM INTERFACE
42
50
16

FIG. 2

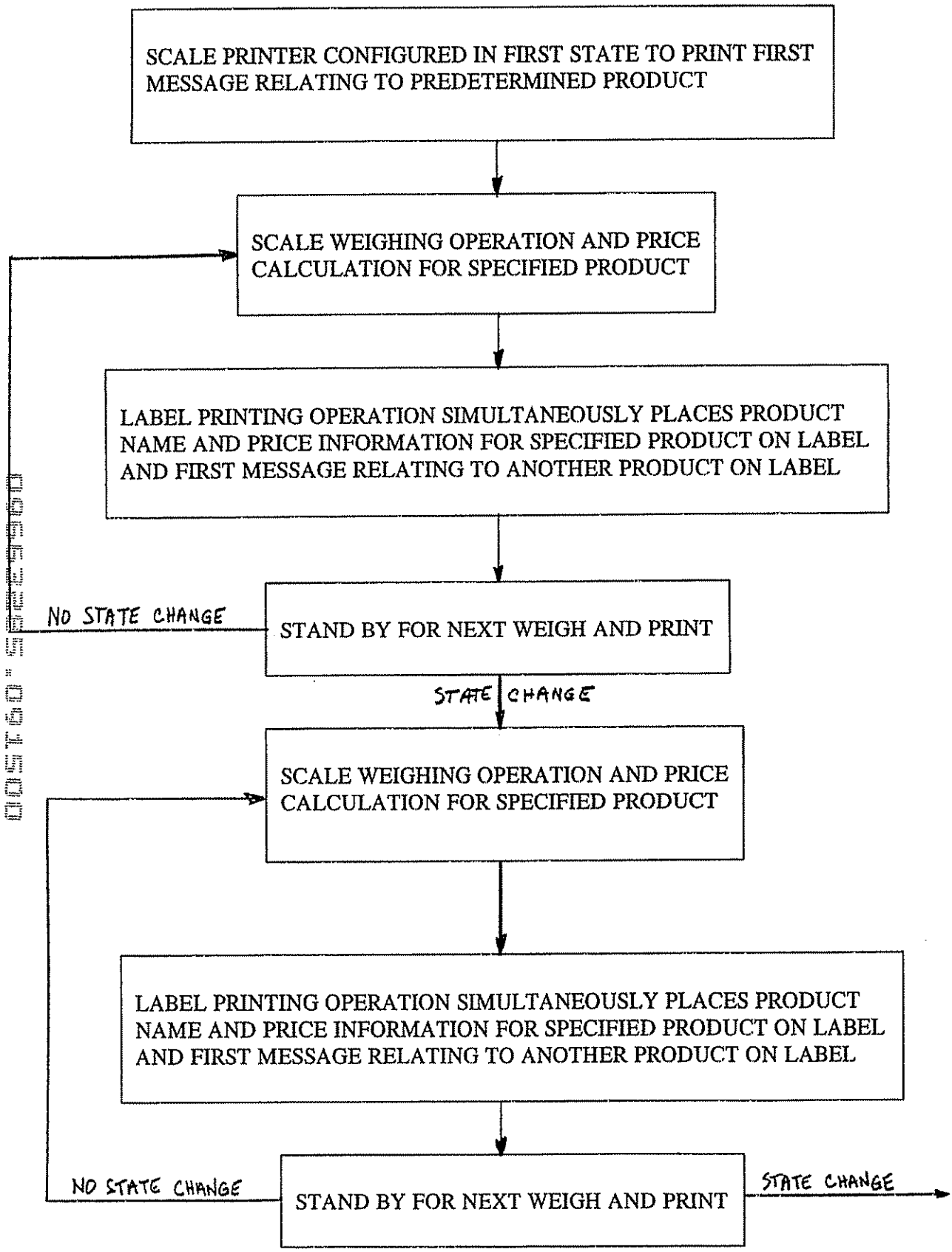
SCALE PRINTER CONFIGURED IN FIRST STATE TO PRINT FIRST MESSAGE RELATING TO PREDETERMINED PRODUCT
SCALE WEIGHING OPERATION AND PRICE CALCULATION FOR SPECIFIED PRODUCT
LABEL PRINTING OPERATION SIMULTANEOUSLY PLACES PRODUCT NAME AND PRICE INFORMATION FOR SPECIFIED PRODUCT ON LABEL AND FIRST MESSAGE RELATING TO ANOTHER PRODUCT ON LABEL
NO STATE CHANGE
STAND BY FOR NEXT WEIGH AND PRINT
STATE CHANGE
SCALE WEIGHING OPERATION AND PRICE CALCULATION FOR SPECIFIED PRODUCT
LABEL PRINTING OPERATION SIMULTANEOUSLY PLACES PRODUCT NAME AND PRICE INFORMATION FOR SPECIFIED PRODUCT ON LABEL AND FIRST MESSAGE RELATING TO ANOTHER PRODUCT ON LABEL
NO STATE CHANGE
STAND BY FOR NEXT WEIGH AND PRINT
STATE CHANGE

FIG. 3

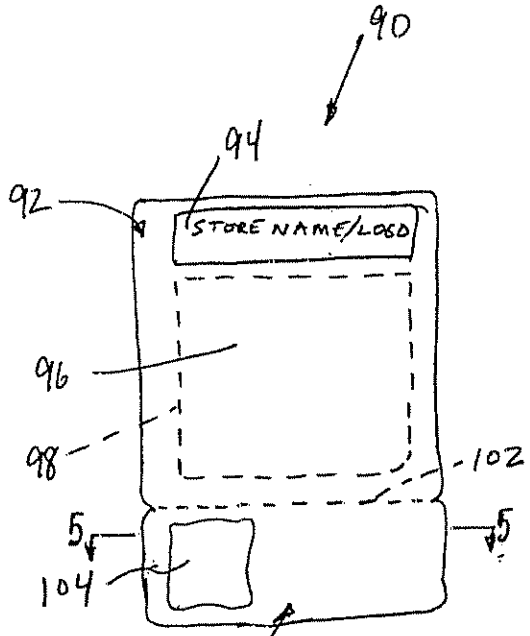

FIG. 4A

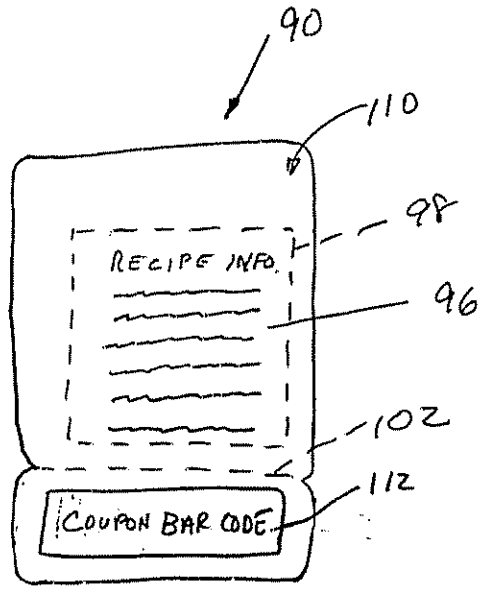

FIG. 4B

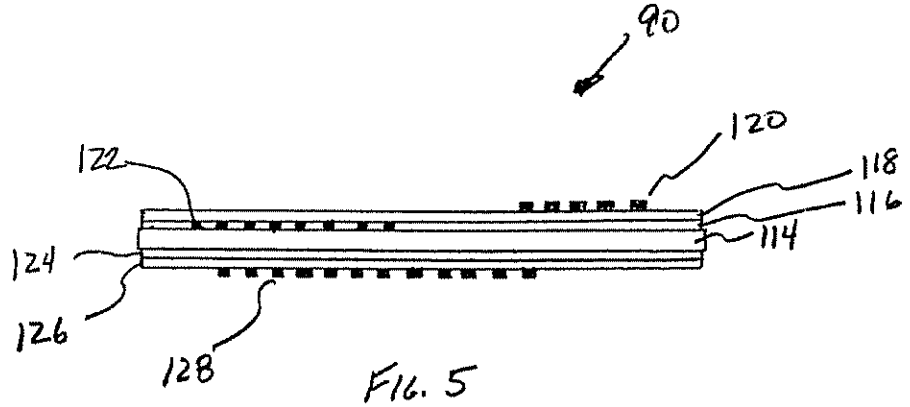

FIG. 5

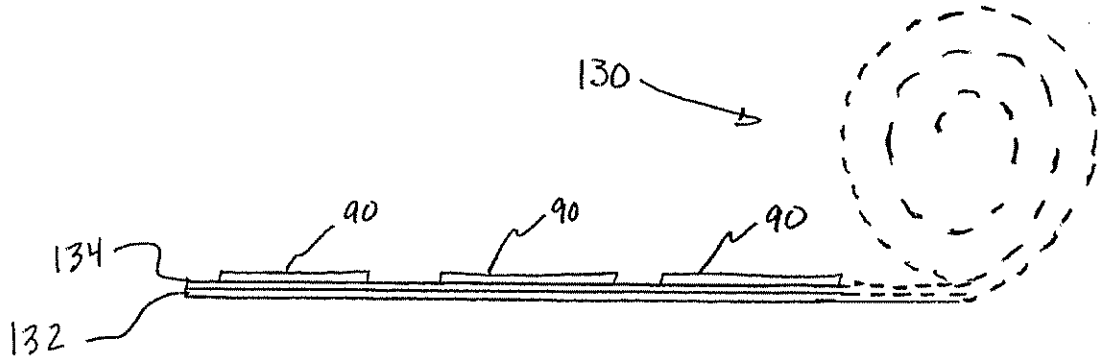

FIG. 6

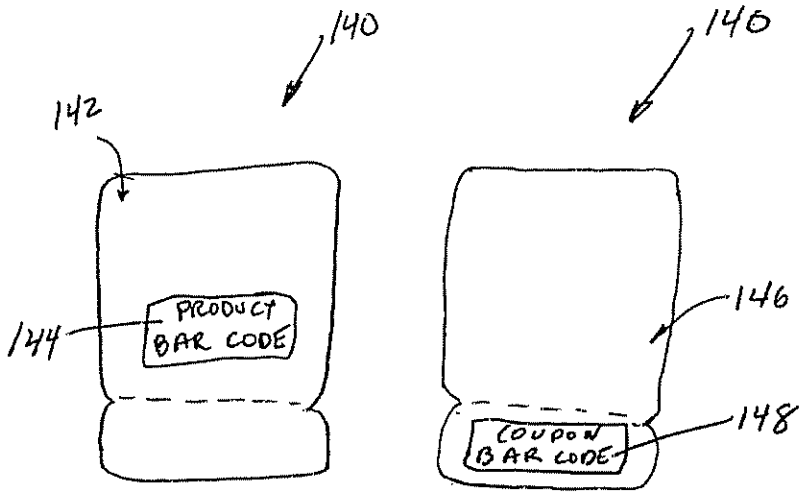

FIG. 7A

FIG. 7B

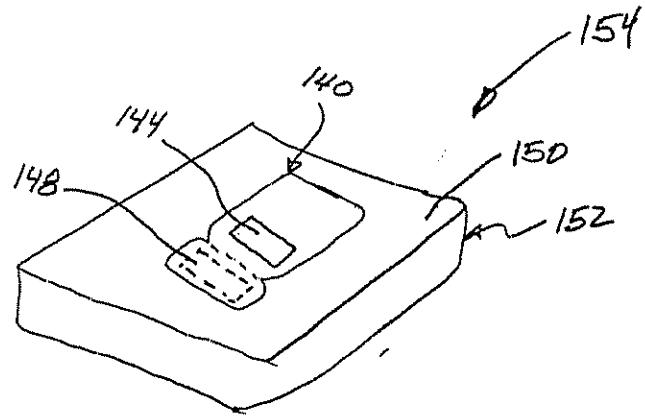

FIG. 8

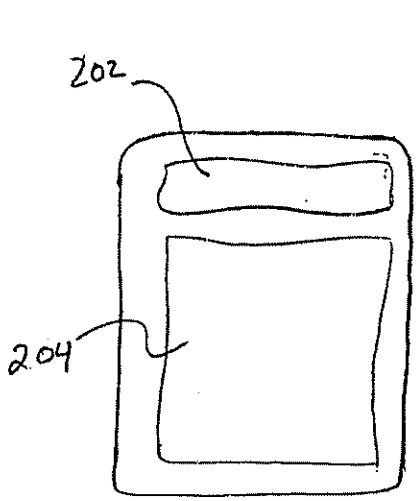

FIG. 9A
(PRIOR ART)

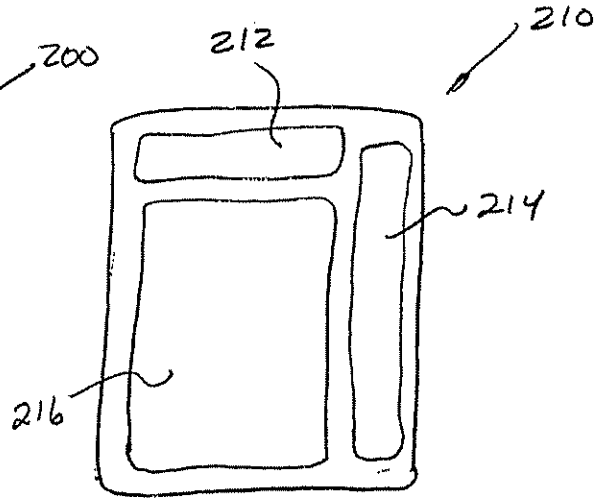

FIG. 9B
(PRIOR ART)

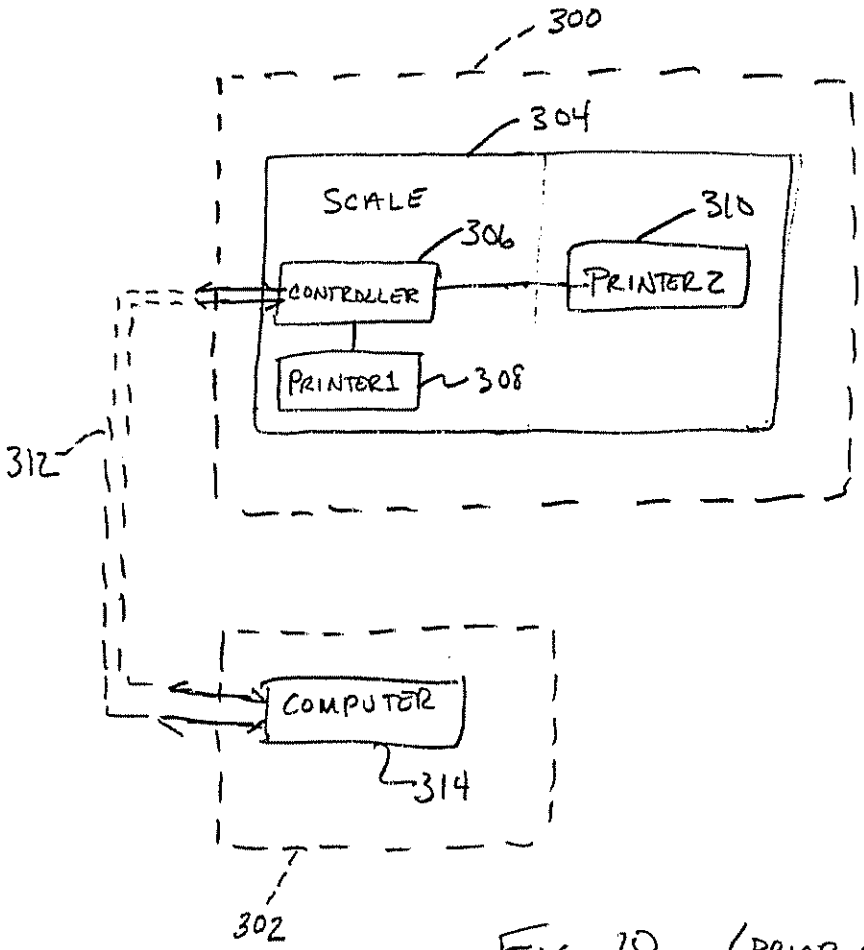

FIG. 10 (PRIOR ART)

Docket 006593-1881

DECLARATION

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name; that

I verily believe I am the original, first and sole inventor (if only one name is listed below) or a joint inventor (if plural inventors are named below) of the invention entitled:

METHOD AND SYSTEM FOR CONTROLLING MESSAGES PRINTED BY AN IN-STORE LABEL PRINTER AND RELATED LABEL STRUCTURE

described and claimed

__X__ in the attached specification;
_____ in the specification filed _____,
as U.S. Application Serial No. _____
and as amended _____.

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims as filed and as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, §1.56(a).

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(937) 443-6949

I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under §1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Full name of sole or first Inventor - Robert J. Schuller

Inventor's Signature Robert J. Schuller

Date: Sept. 13, 2006

Residence: 1914 Woodbine Court, Troy, Ohio 45373
Citizenship : USA
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151655

Exhibit B

US 20050055637A1

(19) United States

(12) Patent Application Publication (10) Pub. No.: US 2005/0055637 A1

Schuller (43) Pub. Date: Mar. 10, 2005

(54) METHOD AND SYSTEM FOR CONTROLLING MESSAGES PRINTED BY AN IN-STORE LABEL PRINTER AND RELATED LABEL STRUCTURE

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(21) Appl. No.: 10/967,799

(22) Filed: Oct. 18, 2004

Related U.S. Application Data

(63) Continuation of application No. 10/389,474, filed on Mar. 14, 2003, which is a continuation of application No. 09/663,285, filed on Sep. 15, 2000.

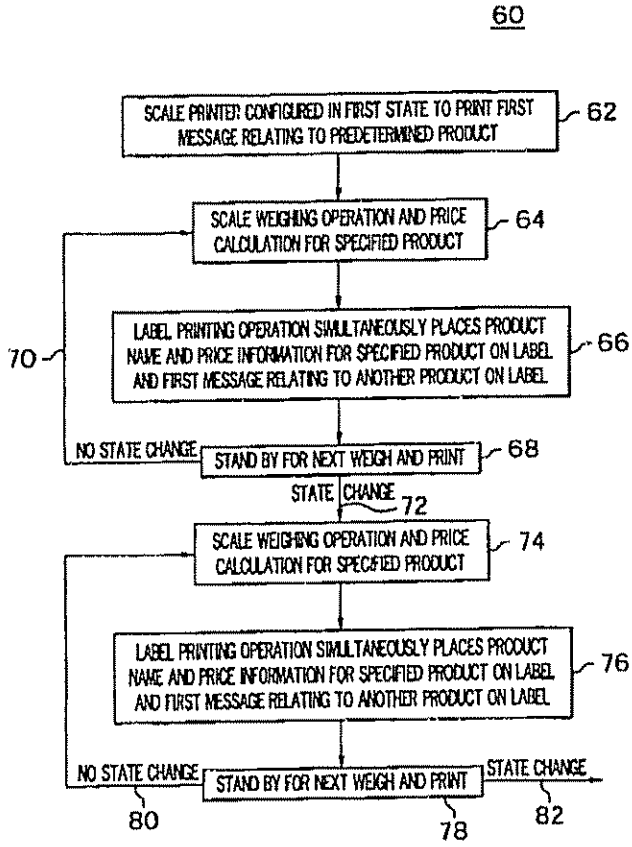
Publication Classification

(51) Int. Cl.[7] G06F 17/00

(52) U.S. Cl. 715/526

(57) ABSTRACT

A method for selectively printing different messages on labels printed by an in-store scale involves providing an in-store scale including a label printing mechanism with a supply of labels and a communications link for receiving information from a site external to the store. The scale label printing mechanism is configured in a first state and, during the first state, simultaneous printing of two types of information on a first label takes place. In particular, both (i) product information for a specified product to which the first label will be applied and (ii) a first message pertaining to a product which is different than the specified product to which the first label will be applied, are printed on the first label. The in-store scale receives a message control signal via the communications link which configures the scale label printing mechanism in a second state. During the second state, simultaneous printing of two types of information on a second label takes place. In particular, both (i) product information for a specified product to which the second label will be applied and (ii) a second message, different than the first message, and also pertaining to a product which is different than the specified product to which the second label will be applied, are printed on the second label.



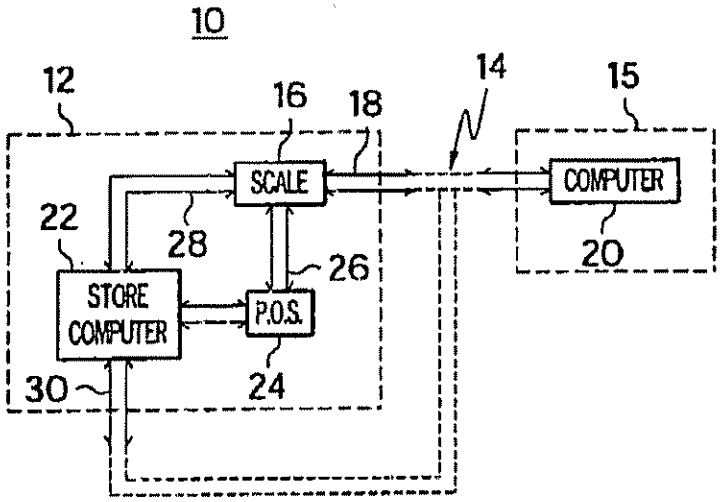

10
12
16
18
14
15
SCALE
COMPUTER
22
28
26
20
STORE COMPUTER
P.O.S.
30
24

FIG. 1

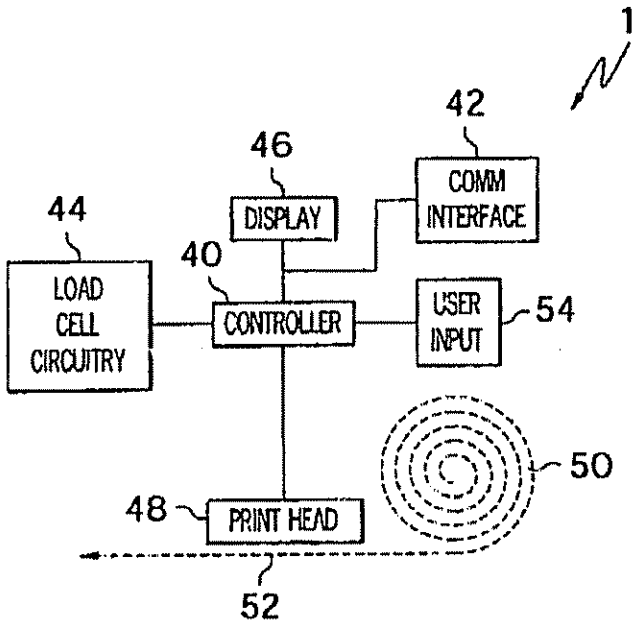

16
42
46
44
DISPLAY
COMM INTERFACE
40
LOAD CELL CIRCUITRY
CONTROLLER
USER INPUT
54
50
48
PRINT HEAD
52

FIG. 2

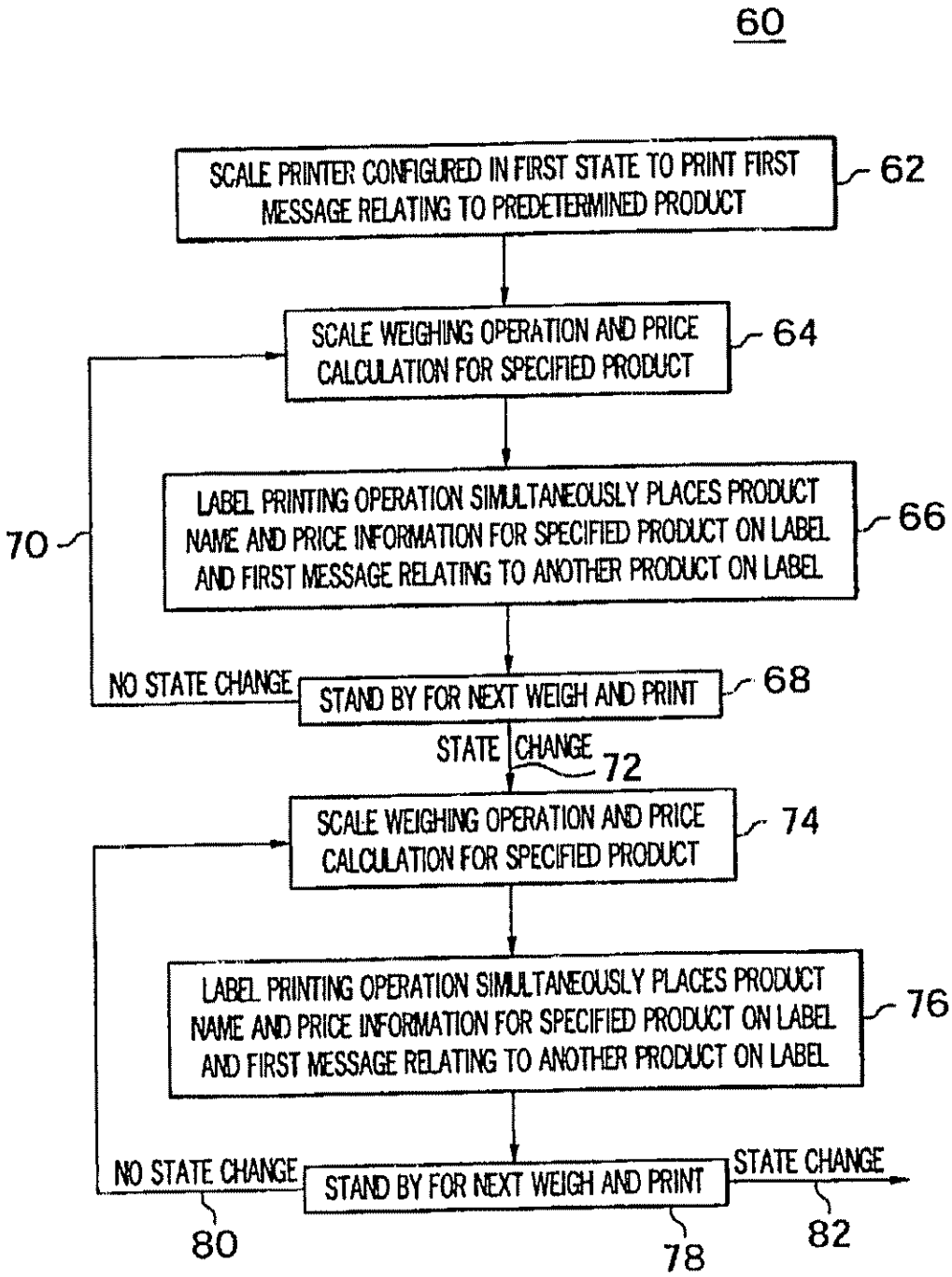

60
SCALE PRINTER CONFIGURED IN FIRST STATE TO PRINT FIRST MESSAGE RELATING TO PREDETERMINED PRODUCT
62
SCALE WEIGHING OPERATION AND PRICE CALCULATION FOR SPECIFIED PRODUCT
64
LABEL PRINTING OPERATION SIMULTANEOUSLY PLACES PRODUCT NAME AND PRICE INFORMATION FOR SPECIFIED PRODUCT ON LABEL AND FIRST MESSAGE RELATING TO ANOTHER PRODUCT ON LABEL
66
70
NO STATE CHANGE
STAND BY FOR NEXT WEIGH AND PRINT
68
STATE CHANGE
72
SCALE WEIGHING OPERATION AND PRICE CALCULATION FOR SPECIFIED PRODUCT
74
LABEL PRINTING OPERATION SIMULTANEOUSLY PLACES PRODUCT NAME AND PRICE INFORMATION FOR SPECIFIED PRODUCT ON LABEL AND FIRST MESSAGE RELATING TO ANOTHER PRODUCT ON LABEL
76
NO STATE CHANGE
STAND BY FOR NEXT WEIGH AND PRINT
STATE CHANGE
80
78
82

FIG. 3

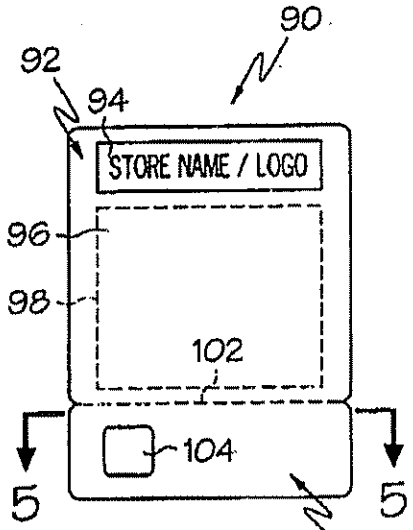


FIG. 4A

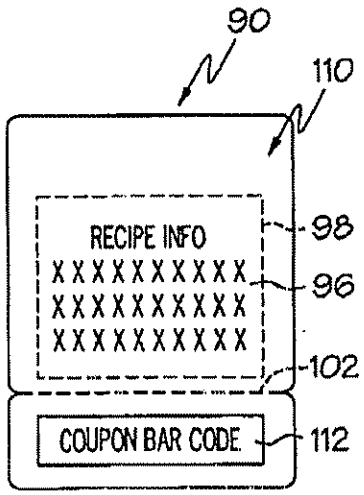


FIG. 4B

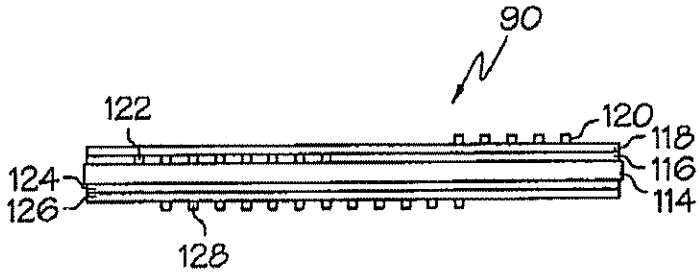


FIG. 5

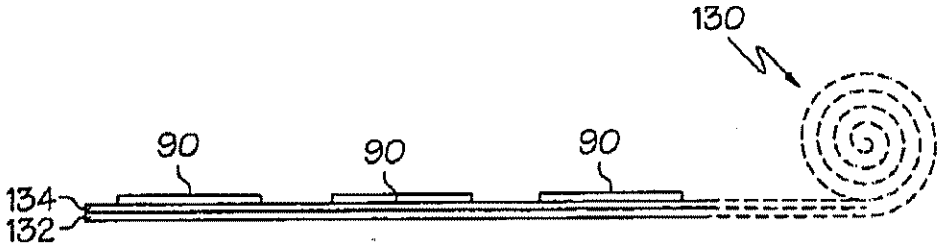


FIG. 6

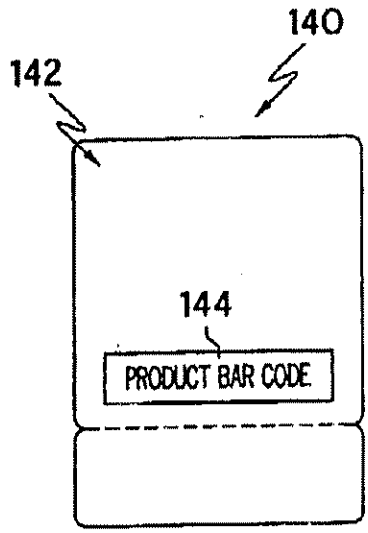


FIG. 7A

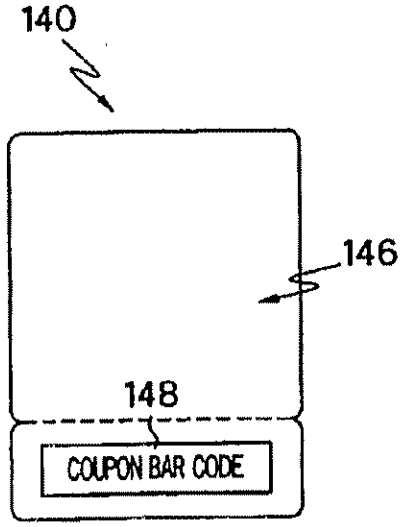


FIG. 7B

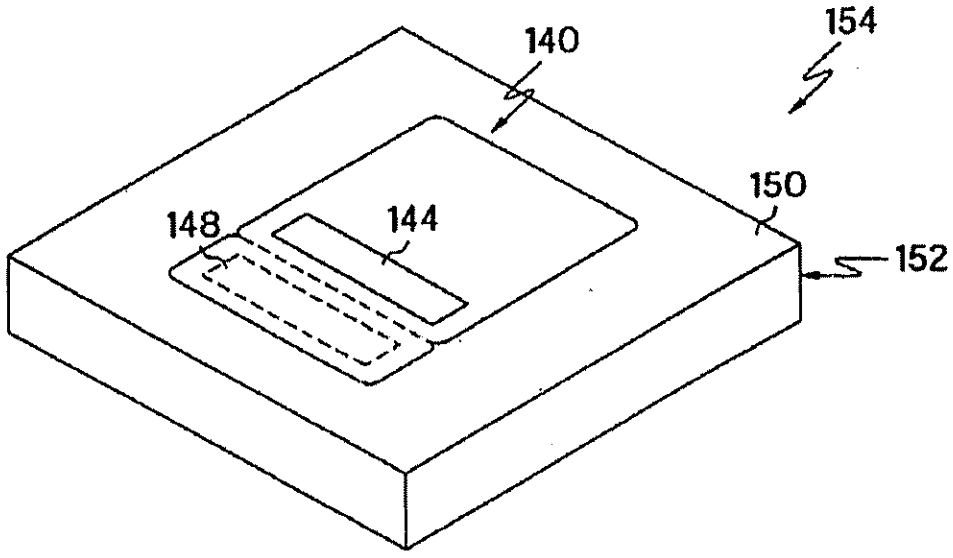


FIG. 8

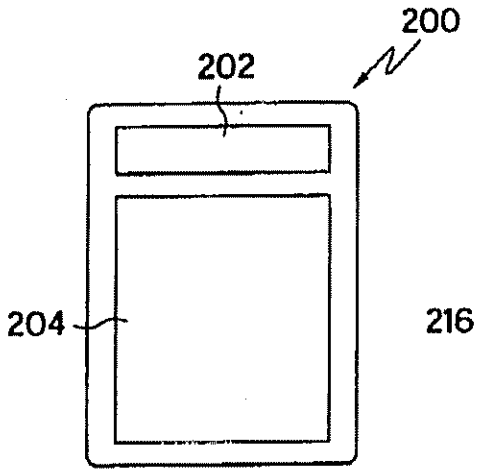


FIG. 9A
(PRIOR ART)

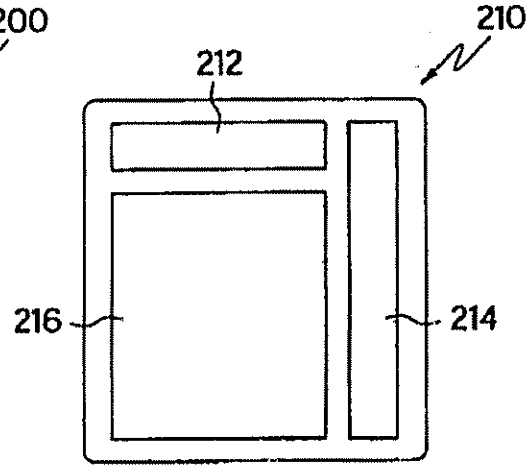


FIG. 9B
(PRIOR ART)

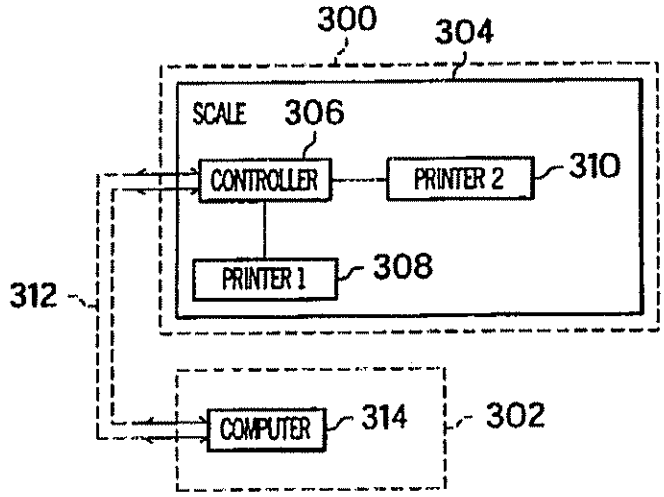


FIG. 10
(PRIOR ART)

METHOD AND SYSTEM FOR CONTROLLING MESSAGES PRINTED BY AN IN-STORE LABEL PRINTER AND RELATED LABEL STRUCTURE

FIELD OF THE INVENTION

[0001] The present invention relates generally to in-store printer mechanisms utilized for printing labels applied to products and to label structures utilized by such printer mechanisms, and more particularly, to a method and system for controlling messages printed on labels by an in-store scale for increasing marketing and promotional opportunities.

BACKGROUND OF THE INVENTION

[0002] The perishable foods sections of most supermarkets and grocery stores such as the meat department, bakery, deli and produce department, typically include one or more in-store printers for printing labels with item name, weight or count, and price information. The labels are then applied to the packaged items. Many such printers are provided as part of in-store scales or systems including scales. **FIG. 9A** represents a front surface view of a typical pre-printed label **200** which may be utilized in the scale. The label **200** is often times pre-printed with store-specific information such as the store name and/or logo in a predetermined portion **202** of the label and a remaining portion **204** of the label is left blank to permit the scale printer to print product name, weight, price information, and product bar code in such space. **FIG. 9B** represents a front surface view of another label **210** which has been used in the past and which is pre-printed with store-specific information such as the store name and/or logo in a predetermined portion **212** and is also pre-printed in label portion **214** with an advertisement message/logo which may relate to any other product sold in the store. Remaining portion **216** is left blank to permit the scale printer to print product name, weight, price information, and product bar code in such space. The problem with the pre-printed advertisement is that it is permanent and cannot be adjusted at the store.

[0003] Increasingly, in-store equipment such as scales/scale systems may include a communications link for receiving information externally of the store. As used herein the term scale system refers to any scale device or any larger device which includes a scale, such as a weigh/wrap machine. For example, prior art scale systems exist in which pricing information in the goods database is updated remotely from a central location so that all related stores in a chain use the same pricing scheme. Chain personnel can also use communications links with in-store scale systems to monitor scale status/function. Still further, prior art in-store scale systems exist which are capable of printing two labels, one which includes the product and price information and another which prints a marketing message. An example of such a prior art system is illustrated in **FIG. 10** where a store **300** is shown and external site **302** is shown. A scale system **304** including a controller **306** and associated printer **308** is located in the store **302**, along with a second printer **310** which is connected to controller **306** for control thereby. The controller **306** is also connected via communications link **312** to a computer **314** at external site **302**. In the illustrated system, computer **314** has been used to control pricing information used by scale **304** for printing on a first label by printer **308**, and to also control merchandising messages printed on a second, separate label by printer **310**, where the pricing information printed by printer **308** and the merchandising information printed by printer **310** related to the same product. Examples of merchandising messages printed on the second label by printer **310** include "Great For The Grill" or "100% Pure Ground Beef" or "50¢ Off". Such prior art systems have also been used to print similar merchandising messages, regarding the product to which a pricing label is applied, on the pricing label itself.

[0004] Product manufacturers, distributors, advertisers and store operators are continually looking for new and improved ways to market and advertise products within the store. Accordingly, given the number of labels printed on a daily basis by such scales, and the fact that the packages containing such labels are typically placed directly in front of consumers or into the consumer's hands, it would be desirable to utilize such scales to deliver marketing and promotional messages for numerous products in a controlled manner.

[0005] In the label printing field it is also known to provide coupons on labels which are applied to products. For example, U.S. Pat. No. 5,578,797 provides a label structure which includes both a product bar code and a coupon bar code on a front surface of the label. The coupon portion of the label is designed to be torn off by the customer. However, some customers may not tear off the coupon. In such cases, this label structure can be problematic because checkout scanners can be confused by the presence of two bar codes on the label. Accordingly, it would also be desirable to provide a label structure which provides coupon capability while overcoming the aforementioned problem.

SUMMARY OF THE INVENTION

[0006] In one aspect of the present invention, a method for selectively printing different messages on labels printed by an in-store scale involves providing an in-store scale including a label printing mechanism with a supply of labels and a communications link for receiving information from a site external to the store. The scale label printing mechanism is configured in a first state and, during the first state, simultaneous printing of two types of information on a first label takes place. In particular, both (i) product information for a specified product to which the first label will be applied and (ii) a first message pertaining to a product which is different than the specified product to which the first label will be applied, are printed on the first label. The in-store scale receives a message control signal via the communications link which configures the scale label printing mechanism in a second state. During the second state, simultaneous printing of two types of information on a second label takes place. In particular, both (i) product information for a specified product to which the second label will be applied and (ii) a second message, different than the first message, and also pertaining to a product which is different than the specified product to which the second label will be applied, are printed on the second label. Thus, the method enables messages imprinted on labels to be selectively controlled by parties such as the manufacturer or distributor of the predetermined product, or an advertising agency charged with increasing sales of the predetermined product.

[0007] In one variation of the method, the first and second messages relate to coupon discount amounts for the prede-

termined product. In connection with this variation, another aspect of the invention provides a label structure including a base paper having front and rear surfaces, at least one pre-printed information region toward the rear surface of the base paper. The pre-printed information region is formed by an adhesive layer adjacent the rear surface of the base paper, an adhesive deadening layer overlaying the adhesive layer in a defined area, and a layer of printed information overlaying at least portions of the adhesive deadening layer. The layer of printed information may include a coupon bar code which can be tied to the coupon discount information to be printed on the front surface of the label. Because the coupon bar code is provided on the rear surface of the label, it will face inward against a package and will not cause confusion with the product bar code on the front surface of the label during scanning, in the event the customer does not detach the coupon before checkout

[0008] Still a further aspect of the invention provides a method for controlling an in-store label coupon printing system involves providing an in-store label printing mechanism including a controller and associated memory, and a user input device. A supply of labels is also provided for the in-store printing mechanism, each label including a pre-printed coupon bar code on a rear surface portion thereof. The user input device is selectively utilized to establish a coupon message to be printed on a front surface of the labels by the in-store printing mechanism. A stored discount amount associated with the coupon bar code is provided in at least one of an in-store point-of-sale computer system memory and a store computer system memory. The stored discount amount is adjusted as needed to coincide with changes made in the coupon message printed by the in-store label printing mechanism.

BRIEF DESCRIPTION OF THE DRAWINGS

[0009] **FIG. 1** is a schematic diagram of one embodiment of a label printing system in accordance with the present invention;

[0010] **FIG. 2** is a schematic diagram of a scale mechanism including a label printer;

[0011] **FIG. 3** is a flowchart of steps according to one embodiment of a method of the present invention;

[0012] **FIGS. 4A and 4B** show front and rear surface views of one embodiment of a label structure according to the invention;

[0013] **FIG. 5** is a cross sectional view along line **5-5** of **FIG. 4A**;

[0014] **FIG. 6** is a side view of a supply roll of labels;

[0015] **FIGS. 7A and 7B** show front and rear surface views of a printed label;

[0016] **FIG. 8** is a perspective view of a labeled package assembly;

[0017] **FIGS. 9A and 9B** show front and rear surface views of prior art labels; and

[0018] FIGS. **10** is a schematic diagram of a prior art system.

DETAILED DESCRIPTION OF THE EMBODIMENTS

[0019] Referring to drawing **FIG. 1**, a schematic diagram of a system **10** useful in carrying out the present invention includes a store **12**, a communications path **14**, and a retail headquarters, product manufacturer, distributor or advertising agency location **15**. The store includes scale system **16** which is connected to the communications path **14** via communications link **18** for receiving externally generated messages, such as those generated by a computer **20** at location **15**. The store **12** also includes a store computer system **22** which may be used for tracking and maintaining inventory and a point-of-sale (POS) computer system **24** which is utilized for customer checkout and typically includes a plurality of bar code scanners. Communications link **26** between the scale system **16** and POS system **24** may be provided and communications link **28** between the store computer system **22** and scale system **16** may also be provided. While the use of communications link **18** to enable the scale to receive external messages is preferred, it is recognized that the scale could receive such externally generated messages via indirect links such as a communications link comprised of link **30**, store computer system **22** and link **28**. Links **18**, **26**, **28** and **30** are preferably hard-wired links such as typical telephone line or coax links, but it is recognized that wireless links could also be utilized. Communications path **14** may preferably be an Internet link but might also be a dedicated type link. In either case the path may be formed by any one of hard-wired, fiber-optic or wireless type arrangements, and combinations of the same.

[0020] As shown in **FIG. 2**, the scale system **16** includes a controller **40** with an associated communications interface **42**. The controller **40** typically includes associated memory for storing firmware, software and data as needed. At least one load cell and associated circuitry **44** are provided for delivering weight information to the controller **40**. The controller **40** is connected for controlling a display **46** such as an LED or LCD, and also for controlling a printing mechanism portion which includes print head **48**, label supply **50**, and mechanism such as a motor drive (not shown) for moving label stock past the print head **48** along a predefined path **52**. A user input device **54** such as a plurality of user input keys or a touch screen arrangement associated with the display **46** enables a user to input information such as the product type and cost per pound or product code, as well as other information, to the controller **40**.

[0021] Scale system **16** may be representative of the typical scale system utilized in one or more of the perishables departments of a supermarket or grocery store for printing labels which are then applied to products. For example, stand alone scales in the deli department print labels which are typically applied to lunch meats, cheeses, side salads and the like. Such scales can also be utilized in the produce department or meat and fish departments. Weigh/wrap type machines are also commonly used. Regardless of where the scale system is located, the present invention enables it to be utilized in a new and improved manner for selective control of messages printed on labels. In particular, referring to the flow chart **60** of **FIG. 3**, exemplary steps in one embodiment of the message control method of the present invention are shown. It is assumed at initial step **62** that the in-store scale system **16** including label printing mechanism **48**, supply of labels **50**, and communications link **18** for receiving information from a site external to the store is configured in a first state. At step **64** a specified product (e.g. lunch meat) is weighed and price calculated. At step **66** simultaneous printing of two types of

information on a first label takes place. In particular, both (i) product information (name and price) for the specified product to which the first label will be applied and (ii) a first message pertaining to a product (e.g. potato chips) which is different than the specified product, are printed on the first label. Thereafter, at step **68** a stand by for the next weigh and print is indicated. If there is no change from the first state of the scale system printer then path **70** will be followed and the next label will be simultaneously imprinted with specified product information and the first message. However, if there is a change from a first state of the scale printer to a second state of the scale system printer, then path **72** will be followed and the next scale weigh operation will take place at step **74** and at step **76** simultaneous printing of two types of information on a second label takes place. In particular, both (i) product information (name and price) for the specified product to which the second label will be applied and (ii) a second message, different than the first and pertaining to the a product which is different than the specified product, are printed on the second label. A new standby state **78** is then shown, with optional paths **80** and **82** according to whether a state change in the scale system printer occurs.

[0022] As used herein, the terminology "simultaneous printing" of information on a label refers to printing which takes place on the label as it passes by the printhead in a single pass, and encompasses, without limitation, both side-by-side printing of information and printing first information on a first portion of the label as the first portion passes by the print head and, subsequently, printing second information on a second portion of the label as the second portion of the label passes by the print head.

[0023] The state change of the scale system printer may be controlled by receipt by the in-store scale of a message control signal via the communications link which configures the scale label printer in a second state. In one embodiment the scale **16** includes a stored table of selectable message options, each including an associated message indicator as shown in representative Table I below:

TABLE I

STORED MESSAGE OPTIONS TABLE

Message Indicator	Message Option
0000	50 Cents Off - Expires MM/DD/YY
0001	25 Cents Off - Expires MM/DD/YY
0010	10 Cents Off - Valid MM/DD/YY - MM/DD/YY
0011	2 For 1 Special - Valid MM/DD/YY - MM/DD/YY
0100	Try New (BRAND) Chips - Now With Less Fat
0101	Try (BRAND)'s New Barbecue Style

[0024] In this arrangement, the scale system also includes a memory location including a selected message indicator. Thus, in state 1 of the example described above the stored selected message indicator could be "0000" in which case during the printing operation of step **66** the scale controller references stored message options Table I and retrieves the "50 Cents Off—Expires MM/DD/YY" message for printing. The control message received via the communications link to cause the state change will be another message indicator such as "0010" which in turn is automatically and immediately overwritten into the selected message indicator memory location. Thereafter, during the printing operation of step **76** the scale controller references stored message options Table I and retrieves the "10 Cents Off—Valid MM/DD/YY—MM/DD/YY" message for printing. Alternatively, the control message received via the communications link may include a new message indicator and associated time or date at which such new message indicator is to be utilized as the selected message indicator. In such cases the data structure storing the selected message indicator may also comprise a table such as Table II below:

TABLE II

SELECTED MESSAGE INDICATORS

Start Date	Selected Message Indicator
MM/DD/YY	0000
MM/DD/YY	0010
MM/DD/YY	0100

[0025] In this arrangement the scale system controller is configured to utilize a running time clock to determine when to change the scale system printer state and begin using a new message indicator. Thus, externally generated message control signals can be utilized to establish a future message selection pattern as desired.

[0026] Utilizing the stored message table technique enables the store owner/operator and the outside entity (product manufacturer, distributor or advertiser) to agree upon permissible messages in advance. However, an alternative embodiment in which the scale system merely stores the message to be printed for state 1 in memory and in which the message control signal received by the scale contains the new message for printing (as opposed to a message indicator) in state 2 is contemplated. Still further, where the stored message table arrangement is utilized, it is possible that the communications link could be utilized to update or revise the stored message table in memory of the scale. In either embodiment, the system and method enables messages printed on labels in the store to be selectively controlled by parties such as chain personnel at retail headquarters, the manufacturer or distributor of the predetermined product, or an advertising agency charged with increasing sales of the predetermined product.

[0027] It is recognized that Table I is merely representative of one type of message options table and that others could be utilized. For example, an alternative message options table is set forth below as Table III:

TABLE III

STORED MESSAGE OPTIONS TABLE

Message Indicator	Message Option - Part 1	Message Option - Part 2
0000	50 Cents Off	Expires MM/DD/YY
0001	25 Cents Off	Expires MM/DD/YY
0010	10 Cents Off	Valid MM/DD/YY - MM/DD/YY
0011	2 For 1 Special	Valid MM/DD/YY - MM/DD/YY
0100	Try New (BRAND) Chips	Now With Less Fat
0101	(BRAND)'s Barbecue Style	Preferred 2 To 1

[0028] Notably, Table II includes two message option parts which the controller can retrieve for printing at different locations on the label. It is also contemplated that a three-dimensional message table or map could be utilized. Such a table could store messages as a function of message

indicator and specified product to which a label is to be applied, so that the message is varied according to selected message indicator and the product to which the label is to be applied. For example, if steak is purchased a message for one product might be printed while if hot dogs are purchased a message for another product might be printed.

[0029] As demonstrated by the last two messages in each of Tables I and III, the messages which are selected for printing may be non-coupon messages. However, in a preferred arrangement the messages which are selected for printing on labels output by the scale system relate to coupon discount information for the predetermined product. For example, as indicated in Table I above the message may be an amount off, a 2 for 1 type special, or might also be a percent off type coupon discount amount. In this regard, a preferred label structure **90** for use in combination with the message control method is illustrated in front and rear surface views respectively in **FIGS. 4A and 4B**. Label structure **90** includes a front face **92** having a store name/logo **94** pre-printed thereon, a central region **96** defined by a separation line **98** and a lower region **100** defined by the edges of the label and separation line **102**. Separation lines **98** and **102** may be formed by any known means including perforation or other weakening of the base paper. The region between store name/logo **94** and the separation line **102** will be used during a printing operation of the scale system to print name and price information and/or product bar code for the specified product to which the label is to be attached. The region below separation line **102** will be used during a printing operation of the scale system to print the message information for the predetermined product. In this regard, the lower region may include a pre-printed name and/or design element of the predetermined product in region **104**, with the selectable message then being printed to the right of region **104**.

[0030] Where the selectable message is a coupon discount message, the label structure rear surface **110** preferably includes a pre-printed coupon bar code **112** on the lower portion of the label so that when the lower portion of the label is detached, the coupon bar code stays with the coupon message printed on the front side. On the rear side of the region defined by separation line **98**, other pre-printed information may be provided such as recipe type information. Where the selectable message information is a coupon discount message, a further step is in order to correlate the change in coupon discount information to the coupon bar code which will be scanned at check-out by the P.O.S. computer system **24** (**FIG. 1**). One or both of the P.O.S. computer system **24** and the store computer system **22** will include a stored discount amount associated with the coupon bar code **112**. When the coupon discount message is changed, the stored discount amount associated with bar code **112** will also need to be changed at some point in the future. Generally, the stored discount amount associated with bar code **112** will be changed at a time corresponding to both the expiration of the valid period for coupons having a first coupon message and the beginning of the valid period for other coupons having a second coupon message. Links **26** and **28** facilitate adjustment of the stored discount amount associated with the coupon bar code **112** as needed. The expiration date of a given coupon discount is printed on the front of the label (see Tables I and III) to prevent problems with customers attempting to use a coupon after the stored amount has been changed.

[0031] Referring again to **FIGS. 4A and 4B**, an important distinction exists between pre-printed information provided on a label and information which is printed by the in-store scale system. In particular, "pre-printed" information exists on the labels when supplied to a store and therefore cannot be changed or modified by the store unless a different label format is chosen/selected or unless an attempt is made to overwrite or black out a pre-printed message on the front of a label. Referring to the cross-sectional view of **FIG. 5** the label structure **90** is formed by a base paper **114**. Toward the front surface side of the base paper a layer **116** formed by a thermally sensitive composition is first provided and atop the thermal layer **116** a layer or coating **118** of a sealing composition is provided to prevent loss of the thermal layer **116**. Atop the sealing layer **118** an ink-based layer **120** of pre-printed information is provided in those regions where such pre-printing is desired. When indicia **122** (e.g. selectable messages) are printed by the thermal print head of the scale, such messages are formed in the thermal layer **116** but are visible through the clear sealing layer **118**. Toward the rear side of the base paper **114** a layer **124** of an adhesive composition is provided for securing the label to a product package. In those regions where pre-printed information is provided on the rear surface of the label **90**, the adhesive layer **124** is covered by an adhesive deadening layer **126** so that that portion of the label can be removed from the package easily. The adhesive deadening layer may typically be formed by a layer of white ink applied over the adhesive. An ink-based layer **128** of pre-printed information (e.g. coupon bar code or recipe) is then applied over the adhesive deadening layer. Referring to **FIG. 6** a representative supply roll **130** of label structures **90** is shown. The supply roll includes a liner **132** having a silicone release layer **134** applied thereto such that when the adhesive side of label structures **90** is applied to the liner they can be easily removed for dispensing from the scale and application to a product package.

[0032] The manufacturing method for producing such label stock involves starting with a wide roll of stock with label material with adhesive side attached to the release surface base paper. The label material is then re-applied to the base paper. The label material is then die cut to form individual labels and length cut to form multiple label supply rolls.

[0033] After printing product information and message information on a label as described above, the resulting label structure may be that shown in **FIGS. 7A and 7B** where front and rear surface portions of a printed label structure **140** are shown. In particular the front surface **142** of printed label structure **140** includes a product bar code **144** thereon as printed by the scale print head. The rear surface **146** of the label structure includes the pre-printed coupon bar code **148**. This arrangement eliminates the possibility that the P.O.S. scanners will confuse the two bar codes during check-out. Because the coupon portion of the label might be removed by the consumer prior to check-out, the product bar code **146** on the front surface is preferably positioned at a location spaced from but proximate to a location of the scannable coupon information bar code. In this regard, the term "proximate" is used to refer to a location which results in positioning of the product bar code **142** toward the same side **150** (**FIG. 8**) of a product package **152** as the coupon bar code **148** when the label is applied to the product package forming a label and package assembly **154**.

[0034] Although the invention has been described and illustrated in detail it is to be clearly understood that the same is intended by way of illustration and example only and is not intended to be taken by way of limitation.

[0035] For example, while a major advantage of the above-described method provides retailers, product manufacturers, distributors and advertisers the ability to selective control messages printed on labels printed in a store, it is recognized that the user input device **54** may be used to selectively control messages as well. Thus, a method for controlling an in-store label coupon printing system is provided which involves providing an in-store label printing mechanism including a controller and associated memory, and a user input device, and providing a supply of labels for the in-store printing mechanism, each label including a pre-printed coupon bar code on a rear surface portion thereof. The user input device is selectively utilized to establish a coupon message to be printed on a front surface of the labels by the in-store printing mechanism. A stored discount amount associated with the coupon bar code is provided in at least one of an in-store point-of-sale computer system memory and a store computer system memory. The stored discount amount can be adjusted to coincide with changes made in the coupon message printed by the in-store label printing mechanism.

[0036] Further, while the use of a scale system with an associated print head is primarily discussed herein, it is recognized that other in-store label printing mechanisms could also be used for selective control of messages printed on labels.

[0037] Accordingly, the spirit and scope of the invention are to be limited only by the terms of the appended claims

What is claimed is:

1-26. (Canceled)

27. A method for distributing a coupon and a product pricing label, the method including the steps of:

utilizing a supply of labels in the form a liner having a release surface, a plurality of labels removably attached to the release surface of the liner and each including a coupon portion, a product pricing portion, a front side and a read side, the coupon portion having a pre-printed coupon bar code located at the rear side thereof to face toward the release surface of the liner, the pre-printed coupon bar code relates to a predetermined product and the front side of the coupon portion includes pre-printed information regarding the predetermined product, the front side of the product pricing portion having a pricing region for having price information printed thereon, wherein at least one separation line is formed between the coupon portion and the product pricing portion, wherein the rear side of the product pricing portion is adhesive and the rear side of the coupon portion is deadened, wherein the liner and the plurality of labels are formed into a roll;

incorporating the supply of labels into a scale having an associated printer, the scale located in a store;

weighing a food product with the scale;

printing, with the printer of the scale, pricing information for the weighed food product in the pricing region on the product pricing portion of a given label of the plurality of labels;

after the printing step, applying the given label to a package containing the weighed food product while the coupon portion and product pricing portion remain attached to one another, the given label applied such that the pre-printed coupon bar code of the coupon portion faces downward against the package and the given label is held to the package by adhesive at the rear side of the product pricing portion; and

providing the package to a customer in the store.

28. The method of claim 27 including the further step of scanning the pre-printed coupon bar code of the coupon portion of the given label when the coupon portion is removed from the product pricing portion and presented at checkout.

29. The method of claim 27 wherein the scale is located in a perishables department of the store and the food product is a perishable food product.

30. The method of claim 27 wherein the scale is part of a weigh/wrap machine in the store.

31. The method of claim 27 wherein the preprinted information regarding the predetermined product includes a name of the product.

32. The method of claim 31 wherein the preprinted information regarding the predetermined product includes a design element of the predetermined product

33. A method for distributing a coupon and a product pricing label, the method including the steps of:

utilizing a supply of labels in the form a liner having a release surface, a plurality of labels removably attached to the release surface of the liner, a multiplicity of the labels including a coupon portion, a product pricing portion, a front side and a rear side, the coupon portion having a pre-printed coupon bar code located at the rear side thereof to face toward the release surface of the liner, the pre-printed coupon bar code relates to a predetermined product and the front side of the coupon portion includes pre-printed information regarding the predetermined product, the front side of the product pricing portion having a pricing region for having price information printed thereon, wherein at least one separation line is formed between the coupon portion and the product pricing portion, wherein the rear side of the product pricing portion is adhesive and the rear side of the coupon portion is deadened, wherein the liner and labels are formed into a roll;

incorporating the supply of labels into a scale having an associated printer, the scale located in a store;

weighing a food product with the scale;

printing, with the printer of the scale, pricing information for the weighed food product in the pricing region on the product pricing portion of a given label of the multiplicity of labels;

after the printing step, outputting the given label from the scale and applying the given label to a package containing the weighed food product while the coupon portion and product pricing portion remain attached to one another, the given label applied such that the pre-printed coupon bar code of the coupon portion faces downward against the package and the adhesive of the product pricing portion holds the given label to the package.

34. The method of claim 33 wherein the package, with the given label applied thereto, is provided to a customer in the store.

35. The method of claim 33 wherein the preprinted information regarding the predetermined product includes a name of the product.

36. The method of claim 33 wherein the preprinted information regarding the predetermined product includes a design element of the predetermined product.

37. A method for distributing a coupon and a product pricing label, the method including the steps of:

utilizing a supply of labels in the form of a liner including a release surface, a plurality of labels removably attached to the release surface of the liner and including a coupon portion, a product pricing portion, a rear side and a front side, the coupon portion having a pre-printed bar code located at the rear side thereof to face toward the release surface of the liner, the front side of the product pricing portion including a pricing region for having at least price information printed thereon, at least one separation line between the coupon portion and the product pricing portion, wherein the liner and labels are formed into a roll;

incorporating the supply of labels into a scale having an associated printer;

weighing a food product using the scale;

printing, with the printer of the scale, pricing information for the weighed food product in the pricing region on the product pricing portion of a given label of the multiplicity of labels;

after the printing step, applying the given label to a package containing the weighed food product while the coupon portion and product pricing portion remain attached to one another, the given label applied with the pre-printed bar code facing downward against the package and such that adhesive of the product pricing portion of the given label holds the label to the package but the coupon portion is removable from the package by separation from the product pricing portion along the separation line; and

providing the package to a customer.

38. The method of claim 37 including the further step of scanning the pre-printed bar code of the coupon portion of the given label when the coupon portion is removed from the product pricing portion and presented at checkout.

39. The method of claim 37 wherein the scale is located in a perishables department of the store and the food product is a perishable food product.

40. The method of claim 37 wherein the scale is part of a weigh/wrap machine in the store.

41. A method for distributing a coupon and a product pricing label, the method including the steps of:

utilizing a supply of labels in the form of a liner including a release surface, a plurality of labels removably attached to the release surface of the liner, a multiplicity of the labels each including a coupon portion, a product pricing portion, a front side and a rear side, the coupon portion having a pre-printed bar code pertaining to a specific product, the pre-printed bar code located at the rear side of the coupon portion to face toward the release surface of the liner, the rear side of the coupon portion is deadened, the front side of the coupon port includes a pre-printed name of the specific product and a pre-printed design element associated with the specific product, the front side of the product pricing portion includes a pricing region for having at least price information printed thereon, the rear side of the product pricing portion is adhesive, at least one separation line between the coupon portion and the product pricing portion, wherein the liner and labels are formed into a roll;

incorporating the supply of labels into a scale having an associated printer;

weighing a food product using the scale;

printing, with the printer of the scale, pricing information for the weighed food product in the pricing region on the product pricing portion of a given label of the multiplicity of labels;

after the printing step, applying the given label to a package containing the weighed food product while the coupon portion and product pricing portion remain attached to one another, the given label applied such that the pre-printed bar code of the coupon portion faces downward against the package thereby preventing scanning of the pre-printed bar code in such orientation

42. The method of claim 41 including the further step of providing the package, with the given label applied thereto, to a customer.

43. A method of distributing coupons, comprising the steps of:

producing a label roll in which a plurality of labels include a coupon portion, a product pricing portion, a front side and a rear side, in accordance with the following steps:

deadening adhesive on the rear side of the coupon portion of each of the plurality of labels;

printing a bar code at the rear side of the coupon portion of each of the plurality of labels, the bar code pertaining to a specific product;

printing at least a name of the specific product on the front side of the coupon portion of each label of the plurality of labels;

attaching the plurality of labels to a release liner;

forming a separation line between the coupon portion and the product pricing portion of each of the plurality of labels;

forming the plurality of labels and release liner into a roll;

providing the roll of labels to a store for placement in a scale including a printer.

44. The method of claim 43 wherein during production of the label roll a design element of the specific product is also printed on the front side of the coupon portion of each label of the plurality of labels.

45. The method of claim 43 wherein the bar code printing step takes place after the adhesive deadening step.

* * * * *

Exhibit C

US007099038B2

(12) **United States Patent**
Schuller

(10) **Patent No.: US 7,099,038 B2**
(45) **Date of Patent: Aug. 29, 2006**

(54) **METHOD AND SYSTEM FOR CONTROLLING MESSAGES PRINTED BY AN IN-STORE LABEL PRINTER AND RELATED LABEL STRUCTURE**

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(73) Assignee: **Premark FEG L.L.C.**, Wilmington, DE (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days

(21) Appl. No : **10/967,799**

(22) Filed: **Oct. 18, 2004**

(65) **Prior Publication Data**

US 2005/0055637 A1 Mar. 10, 2005

Related U.S. Application Data

(63) Continuation of application No. 10/389,474, filed on Mar. 14, 2003, which is a continuation of application No. 09/663,285, filed on Sep. 15, 2000.

(51) **Int. Cl.**
G06F 13/00 (2006.01)

(52) **U.S. Cl.** **358/1.18**; 428/40.1

(58) **Field of Classification Search** 358/1.18; 428/40.1

See application file for complete search history

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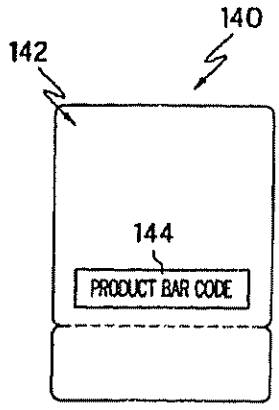
(57) **ABSTRACT**

A method for selectively printing different messages on labels printed by an in-store scale involves providing an in-store scale including a label printing mechanism with a supply of labels and a communications link for receiving information from a site external to the store. The scale label printing mechanism is configured in a first state and, during the first state, simultaneous printing of two types of information on a first label takes place. In particular, both (i) product information for a specified product to which the first label will be applied and (ii) a first message pertaining to a product which is different than the specified product to which the first label will be applied, are printed on the first label. The in-store scale receives a message control signal via the communications link which configures the scale label printing mechanism in a second state. During the second state, simultaneous printing of two types of information on a second label takes place. In particular, both (i) product information for a specified product to which the second label will be applied and (ii) a second message, different than the first message, and also pertaining to a product which is different than the specified product to which the second label will be applied, are printed on the second label

16 Claims, 5 Drawing Sheets



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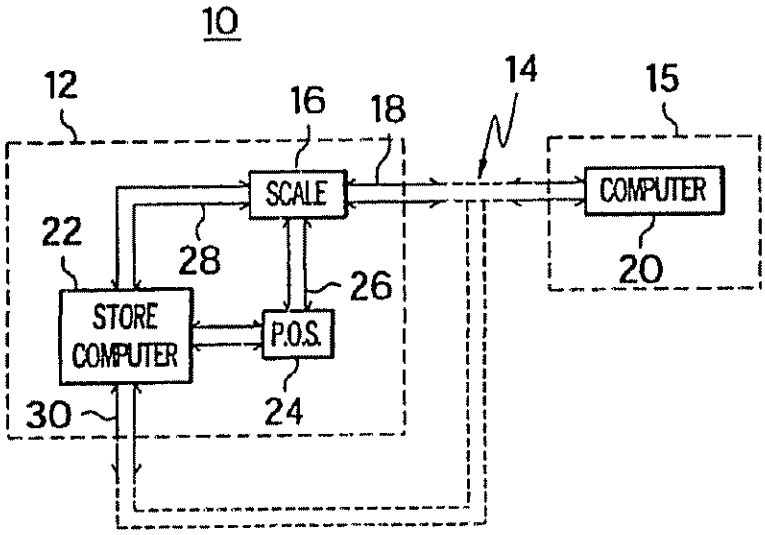
10
12
16
18
14
15
SCALE
COMPUTER
22
28
26
20
STORE COMPUTER
P.O.S.
30
24

FIG. 1

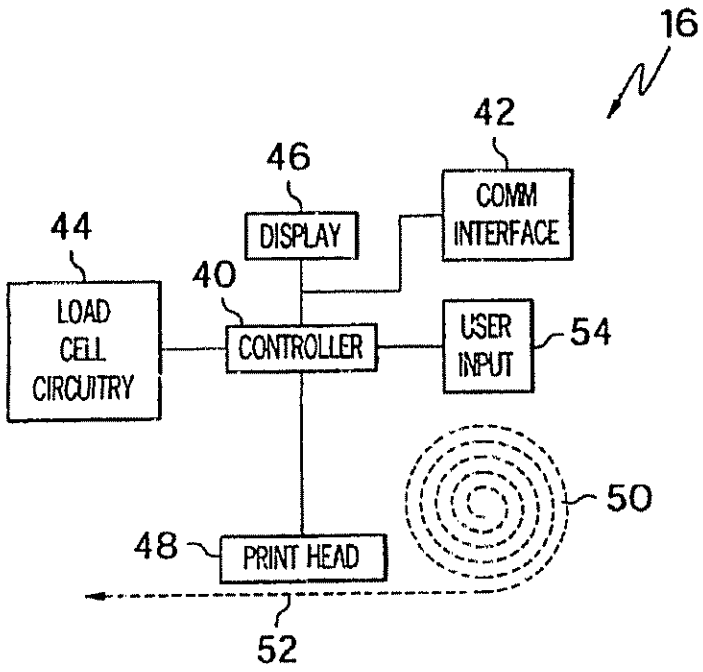
16
42
46
COMM INTERFACE
DISPLAY
44
40
LOAD CELL CIRCUITRY
CONTROLLER
USER INPUT
54
50
48
PRINT HEAD
52

FIG. 2

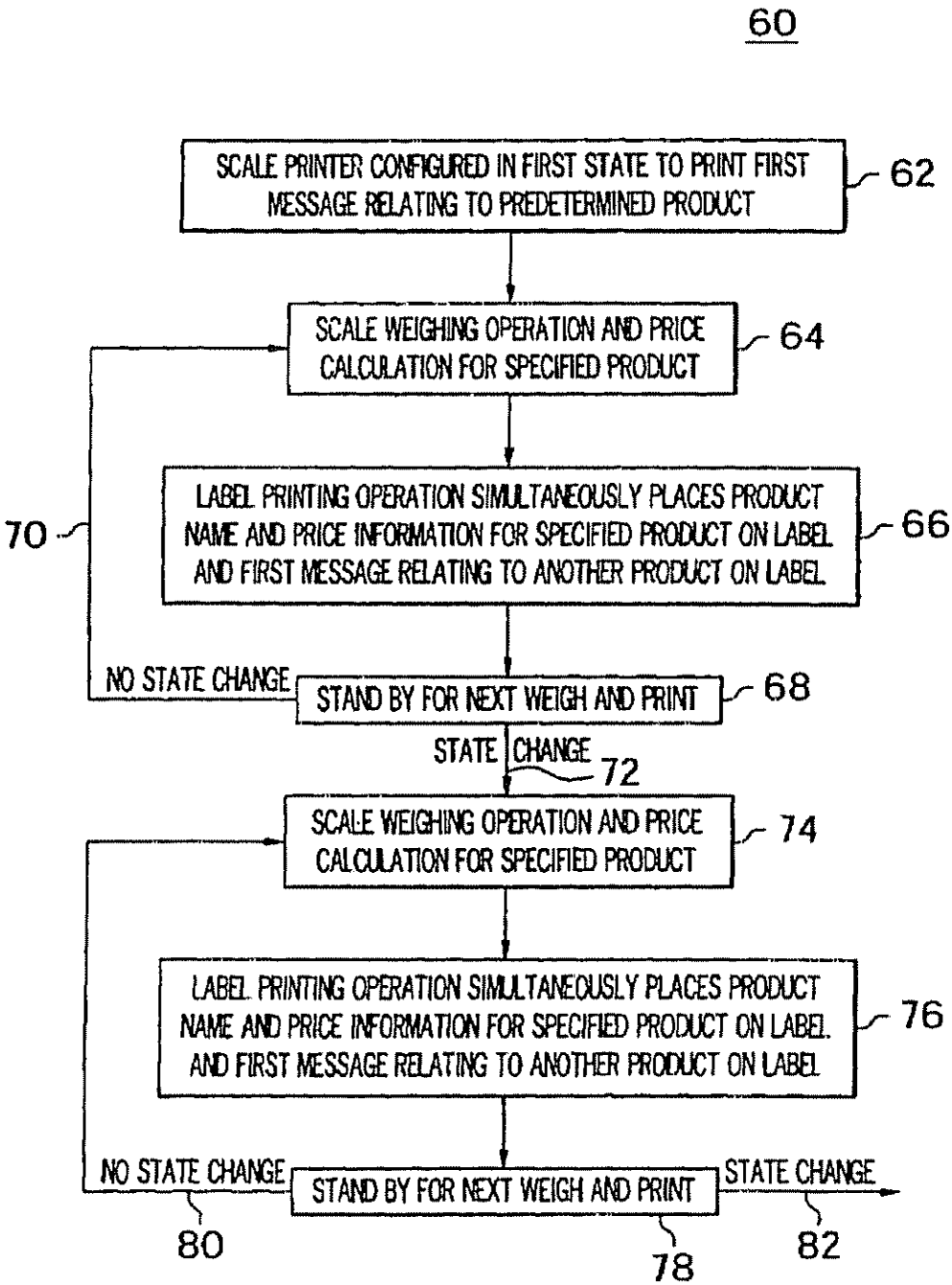
60
SCALE PRINTER CONFIGURED IN FIRST STATE TO PRINT FIRST MESSAGE RELATING TO PREDETERMINED PRODUCT
62
SCALE WEIGHING OPERATION AND PRICE CALCULATION FOR SPECIFIED PRODUCT
64
LABEL PRINTING OPERATION SIMULTANEOUSLY PLACES PRODUCT NAME AND PRICE INFORMATION FOR SPECIFIED PRODUCT ON LABEL AND FIRST MESSAGE RELATING TO ANOTHER PRODUCT ON LABEL
66
70
NO STATE CHANGE
STAND BY FOR NEXT WEIGH AND PRINT
68
STATE CHANGE
72
SCALE WEIGHING OPERATION AND PRICE CALCULATION FOR SPECIFIED PRODUCT
74
LABEL PRINTING OPERATION SIMULTANEOUSLY PLACES PRODUCT NAME AND PRICE INFORMATION FOR SPECIFIED PRODUCT ON LABEL AND FIRST MESSAGE RELATING TO ANOTHER PRODUCT ON LABEL
76
NO STATE CHANGE
STAND BY FOR NEXT WEIGH AND PRINT
STATE CHANGE
80
78
82

FIG. 3

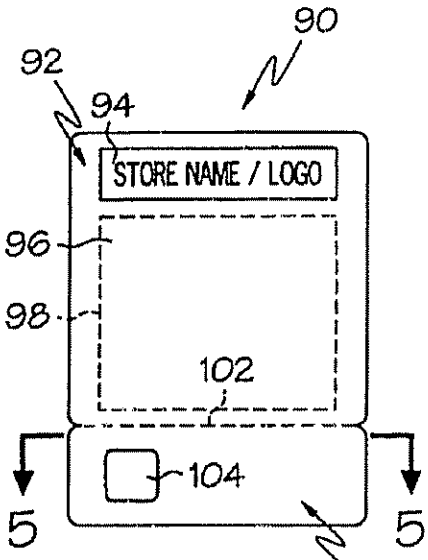

FIG. 4A

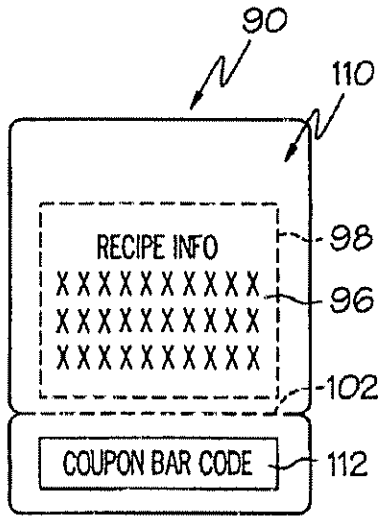

FIG. 4B

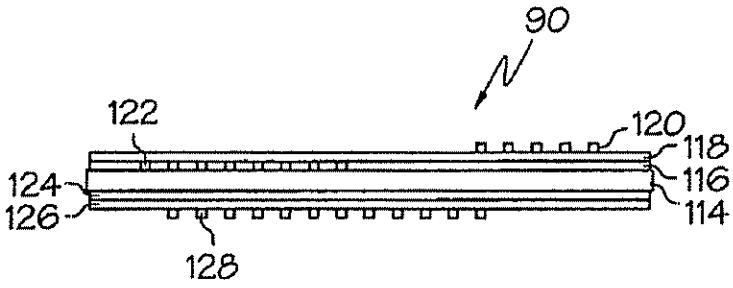

FIG. 5

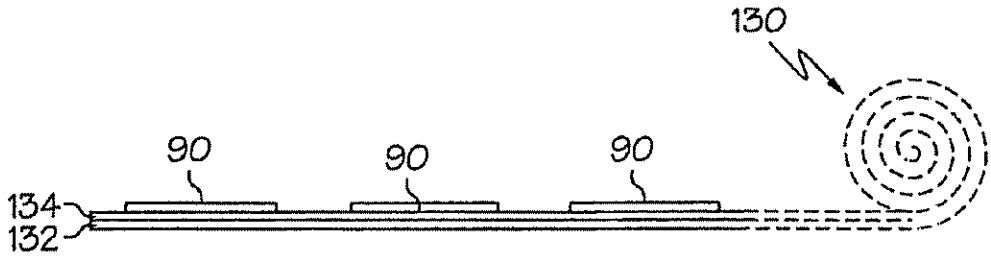

FIG. 6

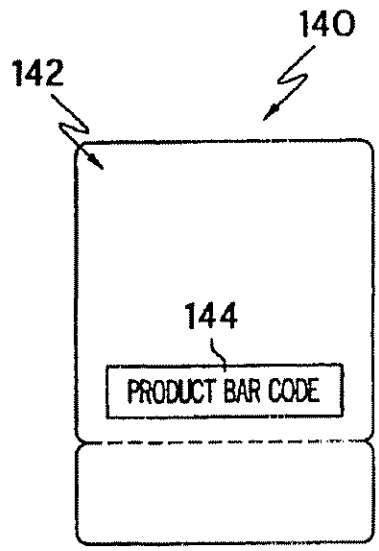

FIG. 7A

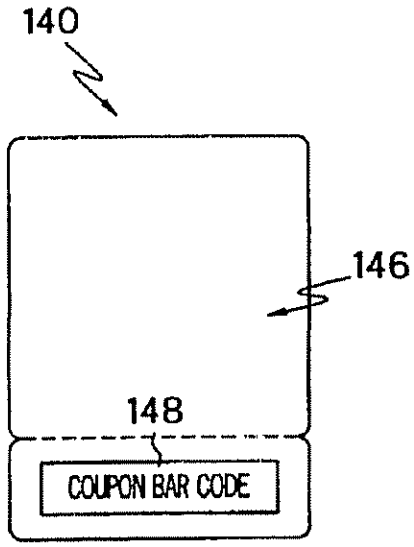

FIG. 7B

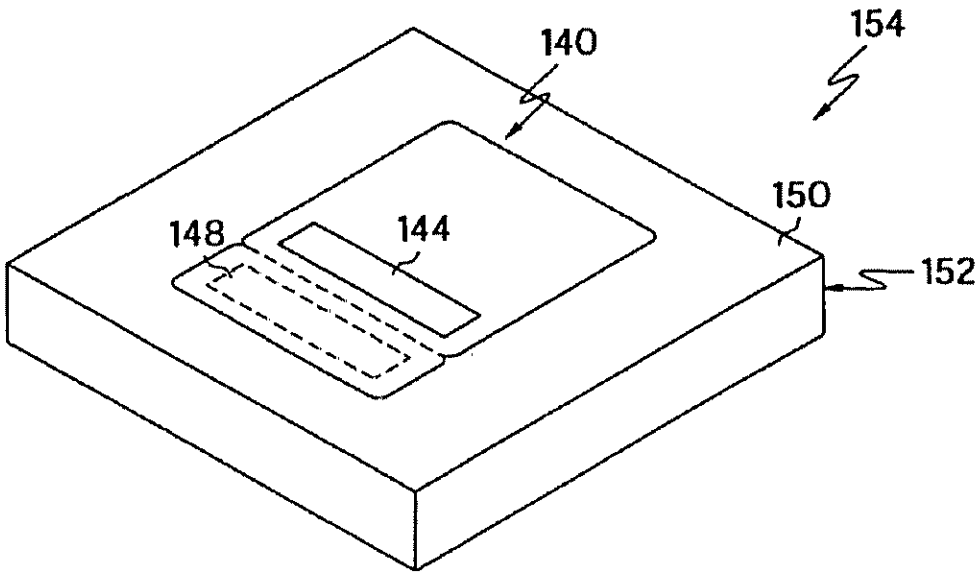

FIG. 8

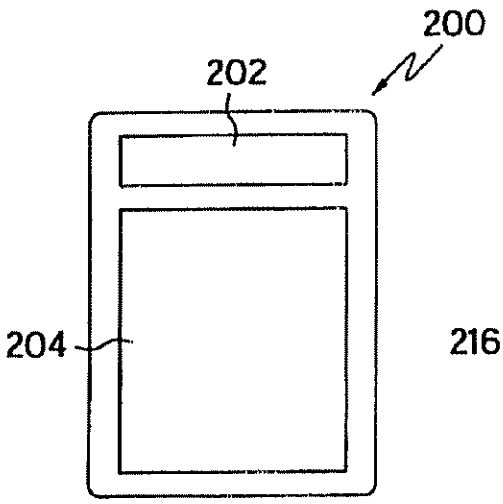

FIG. 9A
(PRIOR ART)

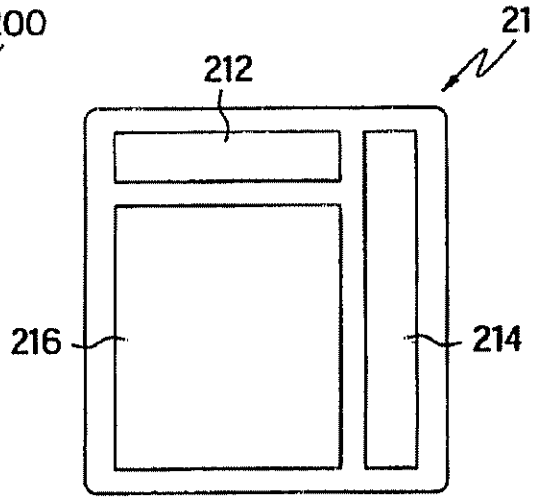

FIG. 9B
(PRIOR ART)

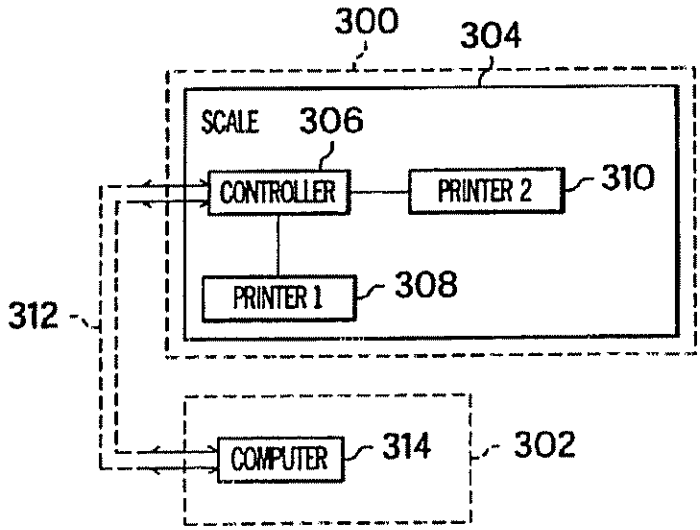

FIG. 10
(PRIOR ART)

METHOD AND SYSTEM FOR CONTROLLING MESSAGES PRINTED BY AN IN-STORE LABEL PRINTER AND RELATED LABEL STRUCTURE

CROSS-REFERENCE TO RELATED APPLICATIONS

This application is a continuation of U.S. application Ser. No. 10/389,474, filed Mar. 14, 2003, which in turn is a continuation of U.S. application Ser. No. 09/663,285, filed Sep. 15, 2000.

FIELD OF THE INVENTION

The present invention relates generally to in-store printer mechanisms utilized for printing labels applied to products and to label structures utilized by such printer mechanisms, and more particularly, to a method and system for controlling messages printed on labels by an in-store scale for increasing marketing and promotional opportunities.

BACKGROUND OF THE INVENTION

The perishable foods sections of most supermarkets and grocery stores such as the meat department, bakery, deli and produce department, typically include one or more in-store printers for printing labels with item name, weight or count, and price information. The labels are then applied to the packaged items. Many such printers are provided as part of in-store scales or systems including scales. FIG. 9A represents a front surface view of a typical pre-printed label **200** which may be utilized in the scale. The label **200** is often times pre-printed with store-specific information such as the store name and/or logo in a predetermined portion **202** of the label and a remaining portion **204** of the label is left blank to permit the scale printer to print product name, weight, price information, and product bar code in such space. FIG. 9B represents a front surface view of another label **210** which has been used in the past and which is pre-printed with store-specific information such as the store name and/or logo in a predetermined portion **212** and is also pre-printed in label portion **214** with an advertisement message/logo which may relate to any other product sold in the store. Remaining portion **216** is left blank to permit the scale printer to print product name, weight, price information, and product bar code in such space. The problem with the pre-printed advertisement is that it is permanent and cannot be adjusted at the store.

Increasingly, in-store equipment such as scales/scale systems may include a communications link for receiving information externally of the store. As used herein the term scale system refers to any scale device or any larger device which includes a scale, such as a weigh/wrap machine. For example, prior art scale systems exist in which pricing information in the goods database is updated remotely from a central location so that all related stores in a chain use the same pricing scheme. Chain personnel can also use communications links with in-store scale systems to monitor scale status/function. Still further, prior art in-store scale systems exist which are capable of printing two labels, one which includes the product and price information and another which prints a marketing message. An example of such a prior art system is illustrated in FIG. 10 where a store **300** is shown and external site **302** is shown. A scale system **304** including a controller **306** and associated printer **308** is located in the store **302**, along with a second printer **310** which is connected to controller **306** for control thereby. The controller **306** is also connected via communications link **312** to a computer **314** at external site **302**. In the illustrated system, computer **314** has been used to control pricing information used by scale **304** for printing on a first label by printer **308**, and to also control merchandising messages printed on a second, separate label by printer **310**, where the pricing information printed by printer **308** and the merchandising information printed by printer **310** related to the same product. Examples of merchandising messages printed on the second label by printer **310** include "Great For The Grill" or "100% Pure Ground Beef" or "50¢ Off". Such prior art systems have also been used to print similar merchandising messages, regarding the product to which a pricing label is applied, on the pricing label itself.

Product manufacturers, distributors, advertisers and store operators are continually looking for new and improved ways to market and advertise products within the store. Accordingly, given the number of labels printed on a daily basis by such scales, and the fact that the packages containing such labels are typically placed directly in front of consumers or into the consumer's hands, it would be desirable to utilize such scales to deliver marketing and promotional messages for numerous products in a controlled manner.

In the label printing field it is also known to provide coupons on labels which are applied to products. For example, U.S. Pat. No. 5,578,797 provides a label structure which includes both a product bar code and a coupon bar code on a front surface of the label. The coupon portion of the label is designed to be torn off by the customer. However, some customers may not tear off the coupon. In such cases, this label structure can be problematic because checkout scanners can be confused by the presence of two bar codes on the label. Accordingly, it would also be desirable to provide a label structure which provides coupon capability while overcoming the aforementioned problem.

SUMMARY OF THE INVENTION

In one aspect of the present invention, a method for selectively printing different messages on labels printed by an in-store scale involves providing an in-store scale including a label printing mechanism with a supply of labels and a communications link for receiving information from a site external to the store. The scale label printing mechanism is configured in a first state and, during the first state, simultaneous printing of two types of information on a first label takes place. In particular, both (i) product information for a specified product to which the first label will be applied and (ii) a first message pertaining to a product which is different than the specified product to which the first label will be applied, are printed on the first label. The in-store scale receives a message control signal via the communications link which configures the scale label printing mechanism in a second state. During the second state, simultaneous printing of two types of information on a second label takes place. In particular, both (i) product information for a specified product to which the second label will be applied and (ii) a second message, different than the first message, and also pertaining to a product which is different than the specified product to which the second label will be applied, are printed on the second label. Thus, the method enables messages imprinted on labels to be selectively controlled by parties such as the manufacturer or distributor of the predetermined product, or an advertising agency charged with increasing sales of the predetermined product.

In one variation of the method, the first and second messages relate to coupon discount amounts for the predetermined product. In connection with this variation, another aspect of the invention provides a label structure including a base paper having front and rear surfaces, at least one pre-printed information region toward the rear surface of the base paper. The pre-printed information region is formed by an adhesive layer adjacent the rear surface of the base paper, an adhesive deadening layer overlaying the adhesive layer in a defined area, and a layer of printed information overlaying at least portions of the adhesive deadening layer. The layer of printed information may include a coupon bar code which can be tied to the coupon discount information to be printed on the front surface of the label. Because the coupon bar code is provided on the rear surface of the label, it will face inward against a package and will not cause confusion with the product bar code on the front surface of the label during scanning, in the event the customer does not detach the coupon before checkout.

Still a further aspect of the invention provides a method for controlling an in-store label coupon printing system involves providing an in-store label printing mechanism including a controller and associated memory, and a user input device. A supply of labels is also provided for the in-store printing mechanism, each label including a pre-printed coupon bar code on a rear surface portion thereof. The user input device is selectively utilized to establish a coupon message to be printed on a front surface of the labels by the in-store printing mechanism. A stored discount amount associated with the coupon bar code is provided in at least one of an in-store point-of-sale computer system memory and a store computer system memory. The stored discount amount is adjusted as needed to coincide with changes made in the coupon message printed by the in-store label printing mechanism.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. **1** is a schematic diagram of one embodiment of a label printing system in accordance with the present invention;

FIG. **2** is a schematic diagram of a scale mechanism including a label printer;

FIG. **3** is a flowchart of steps according to one embodiment of a method of the present invention;

FIGS. **4**A and **4**B show front and rear surface views of one embodiment of a label structure according to the invention;

FIG. **5** is a cross sectional view along line **5**—**5** of FIG **4**A;

FIG. **6** is a side view of a supply roll of labels;

FIGS. **7**A and **7**B show front and rear surface views of a printed label;

FIG. **8** is a perspective view of a labeled package assembly;

FIGS. **9**A and **9**B show front and rear surface views of prior art labels; and

FIG. **10** is a schematic diagram of a prior art system.

DETAILED DESCRIPTION OF THE EMBODIMENTS

Referring to drawing FIG. **1**, a schematic diagram of a system **10** useful in carrying out the present invention includes a store **12**, a communications path **14**, and a retail headquarters, product manufacturer, distributor or advertising agency location **15**. The store includes scale system **16** which is connected to the communications path **14** via communications link **18** for receiving externally generated messages, such as those generated by a computer **20** at location **15**. The store **12** also includes a store computer system **22** which may be used for tracking and maintaining inventory and a point-of-sale (POS) computer system **24** which is utilized for customer checkout and typically includes a plurality of bar code scanners. Communications link **26** between the scale system **16** and POS system **24** may be provided and communications link **28** between the store computer system **22** and scale system **16** may also be provided. While the use of communications link **18** to enable the scale to receive external messages is preferred, it is recognized that the scale could receive such externally generated messages via indirect links such as a communications link comprised of link **30**, store computer system **22** and link **28**. Links **18**, **26**, **28** and **30** are preferably hard-wired links such as typical telephone line or coax links, but it is recognized that wireless links could also be utilized. Communications path **14** may preferably be an Internet link but might also be a dedicated type link. In either case the path may be formed by any one of hard-wired, fiber-optic or wireless type arrangements, and combinations of the same.

As shown in FIG. **2**, the scale system **16** includes a controller **40** with an associated communications interface **42**. The controller **40** typically includes associated memory for storing firmware, software and data as needed. At least one load cell and associated circuitry **44** are provided for delivering weight information to the controller **40**. The controller **40** is connected for controlling a display **46** such as an LED or LCD, and also for controlling a printing mechanism portion which includes print head **48**, label supply **50**, and mechanism such as a motor drive (not shown) for moving label stock past the print head **48** along a predefined path **52**. A user input device **54** such as a plurality of user input keys or a touch screen arrangement associated with the display **46** enables a user to input information such as the product type and cost per pound or product code, as well as other information, to the controller **40**.

Scale system **16** may be representative of the typical scale system utilized in one or more of the perishables departments of a supermarket or grocery store for printing labels which are then applied to products. For example, stand alone scales in the deli department print labels which are typically applied to lunch meats, cheeses, side salads and the like. Such scales can also be utilized in the produce department or meat and fish departments. Weigh/wrap type machines are also commonly used. Regardless of where the scale system is located, the present invention enables it to be utilized in a new and improved manner for selective control of messages printed on labels. In particular, referring to the flow chart **60** of FIG. **3**, exemplary steps in one embodiment of the message control method of the present invention are shown. It is assumed at initial step **62** that the in-store scale system **16** including label printing mechanism **48**, supply of labels **50**, and communications link **18** for receiving information from a site external to the store is configured in a first state. At step **64** a specified product (e.g. lunch meat) is weighed and price calculated. At step **66** simultaneous printing of two types of information on a first label takes place. In particular, both (i) product information (name and price) for the specified product to which the first label will be applied and (ii) a first message pertaining to a product (e.g. potato chips) which is different than the specified product, are printed on the first label. Thereafter, at step **68** a stand by for the next weigh and print is indicated. If there is no change from the first state of the scale system printer

then path 70 will be followed and the next label will be simultaneously imprinted with specified product information and the first message. However, if there is a change from a first state of the scale printer to a second state of the scale system printer, then path 72 will be followed and the next scale weigh operation will take place at step 74 and at step 76 simultaneous printing of two types of information on a second label takes place. In particular, both (i) product information (name and price) for the specified product to which the second label will be applied and (ii) a second message, different than the first and pertaining to the a product which is different than the specified product, are printed on the second label. A new standby state 78 is then shown, with optional paths 80 and 82 according to whether a state change in the scale system printer occurs.

As used herein, the terminology "simultaneous printing" of information on a label refers to printing which takes place on the label as it passes by the printhead in a single pass, and encompasses, without limitation, both side-by-side printing of information and printing first information on a first portion of the label as the first portion passes by the print head and, subsequently, printing second information on a second portion of the label as the second portion of the label passes by the print head.

The state change of the scale system printer may be controlled by receipt by the in-store scale of a message control signal via the communications link which configures the scale label printer in a second state. In one embodiment the scale 16 includes a stored table of selectable message options, each including an associated message indicator as shown in representative Table I below:

TABLE I

STORED MESSAGE OPTIONS TABLE

Message Indicator	Message Option
0000	50 Cents Off - Expires MM/DD/YY
0001	25 Cents Off - Expires MM/DD/YY
0010	10 Cents Off - Valid MM/DD/YY - MM/DD/YY
0011	2 For 1 Special - Valid MM/DD/YY - MM/DD/YY
0100	Try New (BRAND) Chips - Now With Less Fat
0101	Try (BRAND)'s New Barbecue Style

In this arrangement, the scale system also includes a memory location including a selected message indicator. Thus, in state 1 of the example described above the stored selected message indicator could be "0000" in which case during the printing operation of step 66 the scale controller references stored message options Table I and retrieves the "50 Cents Off—Expires MM/DD/YY" message for printing. The control message received via the communications link to cause the state change will be another message indicator such as "0010" which in turn is automatically and immediately overwritten into the selected message indicator memory location. Thereafter, during the printing operation of step 76 the scale controller references stored message options Table I and retrieves the "10 Cents Off—Valid MM/DD/YY—MM/DD/YY" message for printing. Alternatively, the control message received via the communications link may include a new message indicator and associated time or date at which such new message indicator is to be utilized as the selected message indicator. In such cases the data structure storing the selected message indicator may also comprise a table such as Table II below:

TABLE II

SELECTED MESSAGE INDICATORS

Start Date	Selected Message Indicator
MM/DD/YY	0000
MM/DD/YY	0010
MM/DD/YY	0100

In this arrangement the scale system controller is configured to utilize a running time clock to determine when to change the scale system printer state and begin using a new message indicator. Thus, externally generated message control signals can be utilized to establish a future message selection pattern as desired.

Utilizing the stored message table technique enables the store owner/operator and the outside entity (product manufacturer, distributor or advertiser) to agree upon permissible messages in advance. However, an alternative embodiment in which the scale system merely stores the message to be printed for state 1 in memory and in which the message control signal received by the scale contains the new message for printing (as opposed to a message indicator) in state 2 is contemplated. Still further, where the stored message table arrangement is utilized, it is possible that the communications link could be utilized to update or revise the stored message table in memory of the scale. In either embodiment, the system and method enables messages printed on labels in the store to be selectively controlled by parties such as chain personnel at retail headquarters, the manufacturer or distributor of the predetermined product, or an advertising agency charged with increasing sales of the predetermined product.

It is recognized that Table I is merely representative of one type of message options table and that others could be utilized. For example, an alternative message options table is set forth below as Table III:

TABLE III

STORED MESSAGE OPTIONS TABLE

Message Indicator	Message Option - Part 1	Message Option - Part 2
0000	50 Cents Off	Expires MM/DD/YY
0001	25 Cents Off	Expires MM/DD/YY
0010	10 Cents Off	Valid MM/DD/YY - MM/DD/YY
0011	2 For 1 Special	Valid MM/DD/YY - MM/DD/YY
0100	Try New (BRAND) Chips	Now With Less Fat
0101	(BRAND)'s Barbecue Style	Preferred 2 To 1

Notably, Table II includes two message option parts which the controller can retrieve for printing at different locations on the label. It is also contemplated that a three-dimensional message table or map could be utilized. Such a table could store messages as a function of message indicator and specified product to which a label is to be applied, so that the message is varied according to selected message indicator and the product to which the label is to be applied. For example, if steak is purchased a message for one product might be printed while if hot dogs are purchased a message for another product might be printed.

As demonstrated by the last two messages in each of Tables I and III, the messages which are selected for printing

may be non-coupon messages However, in a preferred arrangement the messages which are selected for printing on labels output by the scale system relate to coupon discount information for the predetermined product For example, as indicated in Table I above the message may be an amount off, a 2 for 1 type special, or might also be a percent off type coupon discount amount In this regard, a preferred label structure **90** for use in combination with the message control method is illustrated in front and rear surface views respectively in FIGS 4A and 4B. Label structure **90** includes a front face **92** having a store name/logo **94** pre-printed thereon, a central region **96** defined by a separation line **98** and a lower region **100** defined by the edges of the label and separation line **102** Separation lines **98** and **102** may be formed by any known means including perforation or other weakening of the base paper The region between store name/logo **94** and the separation line **102** will be used during a printing operation of the scale system to print name and price information and/or product bar code for the specified product to which the label is to be attached The region below separation line **102** will be used during a printing operation of the scale system to print the message information for the predetermined product In this regard, the lower region may include a pre-printed name and/or design element of the predetermined product in region **104**, with the selectable message then being printed to the right of region **104**.

Where the selectable message is a coupon discount message, the label structure rear surface **110** preferably includes a pre-printed coupon bar code **112** on the lower portion of the label so that when the lower portion of the label is detached, the coupon bar code stays with the coupon message printed on the front side On the rear side of the region defined by separation line **98**, other pre-printed information may be provided such as recipe type information. Where the selectable message information is a coupon discount message, a further step is in order to correlate the change in coupon discount information to the coupon bar code which will be scanned at check-out by the P.O S computer system **24** (FIG 1) One or both of the P.O S computer system **24** and the store computer system **22** will include a stored discount amount associated with the coupon bar code **112**. When the coupon discount message is changed, the stored discount amount associated with bar code **112** will also need to be changed at some point in the future. Generally, the stored discount amount associated with bar code **112** will be changed at a time corresponding to both the expiration of the valid period for coupons having a first coupon message and the beginning of the valid period for other coupons having a second coupon message. Links **26** and **28** facilitate adjustment of the stored discount amount associated with the coupon bar code **112** as needed. The expiration date of a given coupon discount is printed on the front of the label (see Tables I and III) to prevent problems with customers attempting to use a coupon after the stored amount has been changed.

Referring again to FIGS. 4A and 4B, an important distinction exists between pre-printed information provided on a label and information which is printed by the in-store scale system In particular, "pre-printed" information exists on the labels when supplied to a store and therefore cannot be changed or modified by the store unless a different label format is chosen/selected or unless an attempt is made to overwrite or black out a pre-printed message on the front of a label. Referring to the cross-sectional view of FIG 5 the label structure **90** is formed by a base paper **114** Toward the front surface side of the base paper a layer **116** formed by a thermally sensitive composition is first provided and atop the thermal layer **116** a layer or coating **118** of a sealing composition is provided to prevent loss of the thermal layer **116**. Atop the sealing layer **118** an ink-based layer **120** of pre-printed information is provided in those regions where such pre-printing is desired When indicia **122** (e g selectable messages) are printed by the thermal print head of the scale, such messages are formed in the thermal layer **116** but are visible through the clear sealing layer **118**. Toward the rear side of the base paper **114** a layer **124** of an adhesive composition is provided for securing the label to a product package. In those regions where pre-printed information is provided on the rear surface of the label **90**, the adhesive layer **124** is covered by an adhesive deadening layer **126** so that that portion of the label can be removed from the package easily. The adhesive deadening layer may typically be formed by a layer of white ink applied over the adhesive An ink-based layer **128** of pre-printed information (e g coupon bar code or recipe) is then applied over the adhesive deadening layer Referring to FIG 6 a representative supply roll **130** of label structures **90** is shown The supply roll includes a liner **132** having a silicone release layer **134** applied thereto such that when the adhesive side of label structures **90** is applied to the liner they can be easily removed for dispensing from the scale and application to a product package.

The manufacturing method for producing such label stock involves starting with a wide roll of stock with label material with adhesive side attached to the release surface base paper The label material is then re-applied to the base paper The label material is then die cut to form individual labels and length cut to form multiple label supply rolls

After printing product information and message information on a label as described above, the resulting label structure may be that shown in FIGS. 7A and 7B where front and rear surface portions of a printed label structure **140** are shown. In particular the front surface **142** of printed label structure **140** includes a product bar code **144** thereon as printed by the scale print head. The rear surface **146** of the label structure includes the pre-printed coupon bar code **148** This arrangement eliminates the possibility that the P.O S. scanners will confuse the two bar codes during check-out. Because the coupon portion of the label might be removed by the consumer prior to check-out, the product bar code **146** on the front surface is preferably positioned at a location spaced from but proximate to a location of the scannable coupon information bar code In this regard, the term "proximate" is used to refer to a location which results in positioning of the product bar code **142** toward the same side **150** (FIG. 8) of a product package **152** as the coupon bar code **148** when the label is applied to the product package forming a label and package assembly **154**

Although the invention has been described and illustrated in detail it is to be clearly understood that the same is intended by way of illustration and example only and is not intended to be taken by way of limitation

For example, while a major advantage of the above-described method provides retailers, product manufacturers, distributors and advertisers the ability to selective control messages printed on labels printed in a store, it is recognized that the user input device **54** may be used to selectively control messages as well. Thus, a method for controlling an in-store label coupon printing system is provided which involves providing an in-store label printing mechanism including a controller and associated memory, and a user input device, and providing a supply of labels for the in-store printing mechanism, each label including a pre-printed cou-

pon bar code on a rear surface portion thereof. The user input device is selectively utilized to establish a coupon message to be printed on a front surface of the labels by the in-store printing mechanism. A stored discount amount associated with the coupon bar code is provided in at least one of an in-store point-of-sale computer system memory and a store computer system memory. The stored discount amount can be adjusted to coincide with changes made in the coupon message printed by the in-store label printing mechanism

Further, while the use of a scale system with an associated print head is primarily discussed herein, it is recognized that other in-store label printing mechanisms could also be used for selective control of messages printed on labels.

Accordingly, the spirit and scope of the invention are to be limited only by the terms of the appended claims

What is claimed is:

1. A method for distributing a coupon and a product pricing label, the method including the steps of:

utilizing a supply of labels in the form a liner having a release surface, a plurality of labels removably attached to the release surface of the liner and each including a coupon portion, a product pricing portion, a front side and a read side, the coupon portion having a pre-printed coupon bar code located at the rear side thereof to face toward the release surface of the liner, the pre-printed coupon bar code relates to a predetermined product and the front side of the coupon portion includes pre-printed information regarding the predetermined product, the front side of the product pricing portion having a pricing region for having price information printed thereon, wherein at least one separation line is formed between the coupon portion and the product pricing portion, wherein the rear side of the product pricing portion is adhesive and the rear side of the coupon portion is deadened, wherein the liner and the plurality of labels are formed into a roll;

incorporating the supply of labels into a scale having an associated printer, the scale located in a store;

weighing a food product with the scale;

printing, with the printer of the scale, pricing information for the weighed food product in the pricing region on the product pricing portion of a given label of the plurality of labels;

after the printing step, applying the given label to a package containing the weighed food product while the coupon portion and product pricing portion remain attached to one another, the given label applied such that the pre-printed coupon bar code of the coupon portion faces downward against the package and the given label is held to the package by adhesive at the rear side of the product pricing portion; and

providing the package to a customer in the store.

2. The method of claim 1 including the further step of scanning the pre-printed coupon bar code of the coupon portion of the given label when the coupon portion is removed from the product pricing portion and presented at checkout.

3. The method of claim 1 wherein the scale is located in a perishables department of the store and the food product is a perishable food product

4. The method of claim 1 wherein the scale is part of a weigh/wrap machine in the store.

5. The method of claim 1 wherein the preprinted information regarding the predetermined product includes a name of the product.

6. The method of claim 5 wherein the preprinted information regarding the predetermined product includes a design element of the predetermined product.

7. A method for distributing a coupon and a product pricing label, the method including the steps of:

utilizing a supply of labels in the form a liner having a release surface, a plurality of labels removably attached to the release surface of the liner, a multiplicity of the labels including a coupon portion, a product pricing portion, a front side and a rear side, the coupon portion having a pre-printed coupon bar code located at the rear side thereof to face toward the release surface of the liner, the pre-printed coupon bar code relates to a predetermined product and the front side of the coupon portion includes pre-printed information regarding the predetermined product, the front side of the product pricing portion having a pricing region for having price information printed thereon, wherein at least one separation line is formed between the coupon portion and the product pricing portion, wherein the rear side of the product pricing portion is adhesive and the rear side of the coupon portion is deadened, wherein the liner and labels are formed into a roll;

incorporating the supply of labels into a scale having an associated printer, the scale located in a store;

weighing a food product with the scale;

printing, with the printer of the scale, pricing information for the weighed food product in the pricing region on the product pricing portion of a given label of the multiplicity of labels;

after the printing step, outputting the given label from the scale and applying the given label to a package containing the weighed food product while the coupon portion and product pricing portion remain attached to one another, the given label applied such that the pre-printed coupon bar code of the coupon portion faces downward against the package and the adhesive of the product pricing portion holds the given label to the package.

8. The method of claim 7 wherein the package, with the given label applied thereto, is provided to a customer in the store

9. The method of claim 7 wherein the preprinted information regarding the predetermined product includes a name of the product.

10. The method of claim 7 wherein the preprinted information regarding the predetermined product includes a design element of the predetermined product.

11. A method for distributing a coupon and a product pricing label, the method including the steps of:

utilizing a supply of labels in the form of a liner including a release surface, a plurality of labels removably attached to the release surface of the liner and including a coupon portion, a product pricing portion, a rear side and a front side, the coupon portion having a pre-printed bar code located at the rear side thereof to face toward the release surface of the liner, the front side of the product pricing portion including a pricing region for having at least price information printed thereon, at least one separation line between the coupon portion and the product pricing portion, wherein the liner and labels are formed into a roll;

incorporating the supply of labels into a scale having an associated printer;

weighing a food product using the scale;

printing, with the printer of the scale, pricing information for the weighed food product in the pricing region on the product pricing portion of a given label of the plurality of labels;

after the printing step, applying the given label to a package containing the weighed food product while the coupon portion and product pricing portion remain attached to one another, the given label applied with the pre-printed bar code facing downward against the package and such that adhesive of the product pricing portion of the given label holds the label to the package but the coupon portion is removable from the package by separation from the product pricing portion along the separation line; and

providing the package to a customer.

12. The method of claim 11 including the further step of scanning the pre-printed bar code of the coupon portion of the given label when the coupon portion is removed from the product pricing portion and presented at checkout.

13. The method of claim 11 wherein the scale is located in a perishables department of the store and the food product is a perishable food product.

14. The method of claim 11 wherein the scale is part of a weigh/wrap machine in the store.

15. A method for distributing a coupon and a product pricing label, the method including the steps of:

utilizing a supply of labels in the form of a liner including a release surface, a plurality of labels removably attached to the release surface of the liner, a multiplicity of the labels each including a coupon portion, a product pricing portion, a front side and a rear side, the coupon portion having a pre-printed bar code pertaining to a specific product, the pre-printed bar code located at the rear side of the coupon portion to face toward the release surface of the liner, the rear side of the coupon portion is deadened, the front side of the coupon port includes a pre-printed name of the specific product and a pre-printed design element associated with the specific product, the front side of the product pricing portion includes a pricing region for having at least price information printed thereon, the rear side of the product pricing portion is adhesive, at least one separation line between the coupon portion and the product pricing portion, wherein the liner and labels are formed into a roll;

incorporating the supply of labels into a scale having an associated printer;

weighing a food product using the scale;

printing, with the printer of the scale, pricing information for the weighed food product in the pricing region on the product pricing portion of a given label of the multiplicity of labels;

after the printing step, applying the given label to a package containing the weighed food product while the coupon portion and product pricing portion remain attached to one another, the given label applied such that the pre-printed bar code of the coupon portion faces downward against the package thereby preventing scanning of the pre-printed bar code in such orientation.

16. The method of claim 15 including the further step of providing the package, with the given label applied thereto, to a customer.

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